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ALIGNMENTS

AX035346 AX035346 AX035346 DEFINITION Sequence 1 from Patent WO0053748. ACCESSION AX035346 ACCESSION AX035346 ACCESSION AX035346.1 GI:11191064 KEYMORDS SOURCE Homo sapiens (human) ORGANISM Homo sapiens (homo) Exaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Exaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Exaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Mammalia; Eutheria; Euteleostomi Graniata; Vertebrata; Euteleostomi Mammalia; Euteleostomi Mammalia; Euteleostomi Mammalia; Euteleostomi Graniata; Vertebrata; Euteleostomi Mammalia; Euteleostomi Graniata; Vertebrata; Euteleostomi Mammalia; Euteleostomi Mammalia; Euteleostomi Graniata; Vertebrata; Euteleostomi Graniata; Euteleostomi Graniata; Vertebrata; Euteleostomi Graniata; Vertebrata; Euteleostomi Graniata; Euteleostomi Graniata; Vertebrata; Euteleostomi Graniata; Euteleostomi							
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000 000 000 000 000 000 000			99.4%; Score 1413; DB 6; Length 1441; milarity 100.0%; Pred. No. 5.9e-237; Conservative 0; Mismatches 0; Indels 0; Gaps	1. 141 1 organism="Homo sapier /organism="Homo sapier /mol_type="unassigned /db_xref="taxon:9606"	C.E., Vinale, Y.D., Cocne, T. and Cassart, J.F. compounds t: WO 0053748-A 1 14-SEP-2000; CLAUDINE ELVIRE MARIE (BE) ; SMITHKLINE BEECHAM B: S Y DE BASSOLS CARLOTA (BE) ; COCHE THIERRY (BE) ; POL (BE)	Bapiens (human) Bapiens ryota; Metazoa; alia; Eutheria; nidae; Homo.	1441 bp DNA 1 from Patent WO0053748.

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Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de Further
information about the clone and the sequencing project is available
at http://mips.gsf.de/proj/cNNA/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Neuherberg, GRRMANY
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de;
sequenced by GBF (National Research Centre for Biotechnology Ltd.,
Braumschweig/Germany) within the cDNA sequencing consortium of the
Braumschweig/Germany) within the CDNA sequencing consortium of the
German Genome Project.
This clone (DKFZp686C04213) is available at the RZPD in Berlin.
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/clone_Iib="686 (synonym: hlcc3). Vector pSport1_Sfi; host
DH10B; sites SfiIA + SfiIB"
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1694. .1699
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/mol_type="mRNA"
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Homo sapiens
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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Sequence 13882 from Patent WOD2068579.
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Hominidae; Homo
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TITLE
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Patent: WO 02068579-A 13882 06-SEP-2002;
PE Corporation (NY) (US)
PE Corporation (NY) (US)
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Sciurognathi, Muridae; Murinae; Mus.

Strausberg, R. L., Feingold, E. A., Grouse, L. H., Derge, J.G.,

Klausner, R. D., Collins, F. S., Wagner, L., Shenmen, C. M., Schuler, G. D.,

Altschul, S. F., Zeeberg, B., Buetow, K. H., Schaefer, C. F., Bhat, N. K.,

Altschul, S. F., Zeeberg, B., Buetow, K. H., Schaefer, C. F., Bhat, N. K.,

Altschul, S. F., Zeeberg, B., Buetow, K. H., Schaefer, C. F., Bhat, N. K.,

Altschul, S. F., Zeeberg, B., Buetow, K. H., Schaefer, C. F., Bhat, N. K.,

Boylatchenko, L., Marusina, K., Farmer, A. A., Rubin, G. M., Hong, L.,

Scheetz, T. B., Brownstein, M. J., Usdin, T. B., Toshiyuki, S.,

Scheetz, T. B., Brownstein, M. J., Usdin, T. B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S. S., Loquellano, N. A., Peters, G. J.,

Abramson, R. D., Mullahy, S. J., Bosak, S. A., McEwan, P. J.,

McKernan, K. J., Malek, J. A., Gay, L. J., Hlyk, S. W.,

Villalon, D. K., Muzny, D. M., Sodergren, B. J., Lu, X., Gibbs, R. A.,

Worley, K. C., Hale, S., Garcia, A. M., Gay, L. J., Hlyk, S. W.,

Villalon, D. K., Muzny, D. M., Sodergren, B. J., Lu, X., Gibbs, R. A.,

Villalon, D. K., Muzny, D. M., Sodergren, B. J., Lu, X., Gibbs, R. A.,

Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Rodrigues, S.,

Bouffard, G.G., Blakesley, R. W., Touchman, J. W., Green, B. D.,

Bouffard, G.G., Blakesley, R. W., Touchman, J. W., Green, B. D.,

Bouterfield, Y. S., Krzywinski, M. I., Skalska, U., Smailus, D. E.,

Schnerch, A., Schein, J. E., Jones, S. J. and Marra, M. A.

Memmalian Gene Collection Program Team

Memmalian Gene Collection Program Team

Generation and initial analysis of more than 15,000 full-length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (03-JUN-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Bethesda, MD 20892-2590, USA NIH-MGC Project URL: http://mgc.nci.mih.gov Contact: MGC help desk Email: cgapbs-r@mail.nih.gov Tissue Procurement: Jeffrey E. Green, M.D. Tissue Procurement: Jeffrey E. Green, M.D. CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Buarchontoglires; Glires; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 58 Row: g Column: 17
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 13385245.

Location/Qualifiers
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Proc. Natl. Acad. Sci. U.S.A.
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                                                                                                                                                                                 /clone="MGC:35715 IMAGE:4989815"
/tlssue type="Colon, normal. 5 mc/
/clone_Ib="NCI_CGAP_CO24"
/lab_host="DH10B"
/gene="9030623N16Rik"
/db_xref="GeneID:6681:
/db_xref="MGI:1914061"
                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/strain="FVB/N"
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(Dickson, Mark) mcd@paxil.stanford.edu
M., Schmutz, J., Grimwood, J., Rodriquez,
                                                                                                                                                /note="Vector:
                                                                                                                                                                                                                                                                                                                  db_xref="taxon:10090"
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                                                                                                                                        TAGCGTGCCGCTCTGCCCCCCCCCAGGCTCACCACTCAGTACGGCGC
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/db_xref="GG: 21411408"
/db_xref="GG: 21411408"
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/translation="MTMDGFULPEYPOPRHAASFSVPLLIVILVFLSLAASFLFILPG
/translation="MTMDGFULPEYPOPRHAASFSVPLLIVFLSLAASFLFILPG
IRGHSRWFWLVRVLLSLFIGAEIVAVHFSGDWFVGRVWTNTSYKAFSPSRVQVHVGLH
VGLAGVNITLAGTPRQQLNETIDYNBRFTWRLMEDYTGYVGYVHALEKGLPDFVLYLAEK
FTPSSPCGLYHQYHLAGHYAAATTMYAFCFWIIANALSMAPPLYGGLAHLTTGAFT
EGVFAFASISSVPLCHFRLGSAVLTFYYGGASFWLTLATGILSLLLGGAVVILHYTRPS
ALRSFLDLSVKDCSNQAKGNSFLTLNNPQHEQLKSPDLNITTLL"
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/codon_start=1
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Pred. No. 6.9e-111;
0; Mismatches 276;
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Sus scrofa dual oxidase 1 (Duox1) mRNA, complete cds.
AF547266
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Noell-Hudson,M.S., Virion,A. and Dupuy,C.
Effect of iodide on nicotinamide adenine dinucleotide phosphate
Effect of iodide. and nicotinamide expression in isolated porcine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sus scrofa (pig)
                                                                                                                                                                                                                               Submitted (13-SEP-2002) Unite 486, 5 rue JB Clement, Chatenav-Malabry
                                                                                                                                                                                                                                                                                                                                                     oxidase activity and Duox2 protein expression thyroid follicles
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
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Morand, S., Chaaraoui, M.,
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Kaniewski,J., Morand
                                                                                                                                                                                                                                                                           and Dupuy,
                                                                                                                                                                                                                                                                                                                                       Endocrinology 144 (4), 1241-1248 (2003)
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                                                                                                                                  /organism="Sus scrofa"
/mol_type="mRNA"
/db_xref="taxon:9823"
1. .5851
                         /function="putatively generates H2O2 by transferring electrons from NADH/NADPH to molecular oxygen" /function="oxidoreductase acting on NAD(P)H with oxygen"
                                                                                                                                                                                                                                 Clement, Chatenay-Malabry
                                                                                                     /gene="Duox1"
948. .5609
                                                                          /gene="Duox1"
/EC_number="1
                                                                                                                                                                                                              ocation/Qualifiers
note="NADPH:02 oxidoreductase"
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                                                                          number="1.6.3"
                                                                                                                                                                                                                                                                                           Morand, S.,
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                                                                                                                                                                                                                                 INSERM University of Paris-Sud 92296, France
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                              NAD(P)H with oxygen
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Best Local Simi
Matches 735;
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Similarity

44.1**%**; 81.8**%**;

DB 4;

Length

5851;

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/db_xref="GI:23664373"
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gskgsrlqrlvfasyadgvyqflgefhlfnfrdlsntamrgfagqaslrnrtvlgvff
                                                                                                                                                                                       /codon_start=1
/product="dual oxidase
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442
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                                                                                                                                                         AGCTGAACGAGACCATTGACTACAACGAGCAGTTCACCTGGCGTCTGAAAGAGAATTACG
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                                                                                            CCGCGGAGTACGCGAACGCACTGGAGAAGGGGGCTGCCGGACCCCAGTGCTCTACCTGGCGG
                                                                                                                                                                                                                               TCGGTCTGCTCGTGGGCCTGGAGGGCATTAATATTACACTCACAGGGACCCCAGTGCATC
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                     AGAAGTTCACACCGAGTAGCCCTTGCGGCCTGTACCACCAGTACCACCTGGCGGGACACT
                                                                                                                                                                                                      TCGGTCTGCACGTGGGCCTGGAGGGTGTGAATATCACACTCACAGGGAATCCGGTACAGC
AGAAGTT-ACTCCCAGAAGCCCCTGCGGGGTTTACCGCCAATATCGCCTAGCCGGACACT
                                                                 ceeceecerareceaaecercieeaeaaeecreceeaeceaeceaeceaeceaeceraece
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Pred. No. 1.4e-99;
0; Mismatches 163;
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Patent: WO 0053748-A 3 14-SEP-2000;
BRUCK CLAUDINE ELVIRE MARIE (BE) ; SMITHKLINE BEECHAM BIOLOG (BE) ;
VINALS Y DE BASSOLS CARLOTA (BE) ; COCHE THIERRY (BE) ; CASSART
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bruck, C.E., Vinals, Y.D., Coche, T. and Cassart, J.
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Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini;
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Sequence 3 from Patent WO0053748.
AX035348
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CAGGCCGCTCTCCCAGACTTAAAATGTATCACCACTAACCTGTGAGGGGGGACCCAATCTG 1244
                                                 AAGGACTGCAGCAGGAGAGAGGGGGCTCACCTCTTATCCTCGGCGACCCACTGCACAAG 1184
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/mol_type="unassigned DNA"
/db_xref="taxon:9606"
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RS Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M.,

RS Birren, B., Linton, L., Neckerly, R., Boguslavkiy, L., Boukhgalter, B.,

Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B.,

Baldwin, J., Barna, N., Beckerly, R., Collins, S., Collymore, A.,

Cooke, P., Castle, A., Colangelo, M., Collins, S., Collymore, A.,

Cooke, P., DeArellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M.,

Ferreira, P., FitzHugh, W., Forrest, C., Funke, R., Gage, D.,

Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L.,

Galagan, J., Gardyna, S., Grant, G., Hagos, B., Karatas, A., Klein, J.,

Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J.,

Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N.,

McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J.,

McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J.,

Morrow, J., Naylor, J., Norman, C.H., O'Connor, T., O'Donnell, P.,

Peterson, K., Pollara, V., Riley, R., Roy, A., Santos, R., Severy, P.,

Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J.,

Tesfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Wheeler, J., Wu, X.,

Byman, D., Ye, W.J., Zimmer, A. and Zody, M.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (21-OCT-1999) Whitehead Institute/MIT Center for Research, 320 Charles Street, Cambridge, MA 02141, USA On May 3, 2000 this sequence version replaced gi:7209928. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome-washington.edu/RM/RepeatMasker.html
Center project name: 13737

Center clone name: 109 D 20

Center clone name: 109 D 20

Sequencing vector: M13; M77815; 100% of reads
Sequencing vector: M13; M77815; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Censensus quality: 153800 bases at least Q40

Consensus quality: 153800 bases at least Q40

Consensus quality: 160806 bases at least Q20

Consensus quality: 163275 bases at least Q20

Insert size: 164837; sum-of-contigs

Quality coverage: 4.0 in Q20 bases; sum-of-contigs
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Birren,B., Linton,L., Nusbaum,C. and Lander,B.
Homo sapiens chromosome 15, clone RP11-109D20
Unpublished
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                                                                                                                                                                                                                                                                                                                                                        Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center: Whitehead Institute/ MIT Center for Genome Research Center code: WIBR
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/estim c_feature 4946.	note="assembly_fragment" 4846 4945	misc_feature 37274845	ן ביים ביים	misc_reacure	/estima	/note="assembly_fragment" gap 20882187		clone lib="RPCI-11 Human Male BAC"	/map="15"	/db_xref="taxon:9606" /chxomosome="15"	/mol_type="genomic DNA"	rce	2 166937: contig of Location/Qualifiers	100 pp	94 121293: gap of 100 bp	101808: gap of 121193: contig	101708: contig	87433:	2: gap of	60223: gap of 100 bp	gap of	51729: contig	contig	38386:	34189: contig 34289: gap of	100 bp	25040: gap of 100 bp	20943: gap of 100 bp 24940: contig of 3997	20843: contig	6 16451: contig	13215:	10494: contig 10594: gap of	6: gap of 100 bp	6802: gap of 100 bp		4845: contig	8 3626: contig of	œ ⊩	preserved.	 This record will be updated with the finished sequence as soon as it is available and the accession number will 	of N,		* NOTE: This is a 'working draft' sequence. It currently
gap	misc_feature		gap	misc_feature	gap	misc_reacure)	gap		misc_reacure		qap	misc_feature	дар	misc_feature	дар	- 1	misc feature	gap.	misc_feature	gap	ď	misc feature	qap	misc_feature	gap	misc_feature	gag	## D C C C C C C C C C C C C C C C C C C	3	-	misc_feature	gap	misc_feature	Gab	1 1 0 0 0 0	c feature	gap	misc_feature	gap	## # # # # # # # # # # # # # # # # # #	,	qap
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC091117 181312 bp DNA linear PRI 20-PEB-2002
Homo sapiens chromosome 15 clone RPI1-109D20 map 15q15, complete
                                                                                                                          Rowen, L., Madan, A., Qin, S., Baradarani, L., Birditt, B., Burke, J., Dors, M., Fleetwood, P., Kaur, A., Madan, A., Nes Pate, D. and Hood, L. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                              Rowen,L., Madan,A., Qin,S., Baradarani,L., Birditt,B., Bloom,S., Burke,J., Dors,M., Fleetwood,P., Kaur,A., Madan,A., Nesbitt,R., Pate,D. and Hood,L.
                                            for Systems Biology, 4225
98105, USA
                                                                          Submitted (13-FEB-2002) Multimegabase Sequencing Center, Institute for Systems Biology, 4225 Roosevelt Way NE, Suite 200, Seattle, WA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequencing of human chromosome 15 D15S146-D15S117 region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rowen,L., Madan,A., Qin,S., Baradarani,L., Birditt,B., Bloom,S. Burke,J., Dors,M., Fleetwood,P., Kaur,A., Madan,A., Nesbitt,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pate, D. and Hood, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hominidae; Homo.
1 (bases 1 to 181312)
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                                                                                                                                                                                                                                              (bases 1 to 181312)
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                    (bases 1 to 181312)
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98.6%;
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Pred. No. 1.3e-62; 
0; Mismatches 6; Indels 0; G
                                                                                                                                                                                                 B., Bloom, S.,
Nesbitt, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bloom, S.,
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Submitted (14-PSE) Multimegabase Sequencing Center, Institute for Systems Biology, 4225 Roosevelt Way NE, Suite 200, Seattle, WA 98105, USA
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Burke, J.,
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Burke,J., Dors,M., Fleetwood,P., Kaur,A., I
Pate,D. and Hood,L.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Note: Data from overlapping clone AC090888 [Drafting center: WIBR] was added for finishing. RP11-109D20 spans bases 1-174236 of this sequence. Bases 174237-179373 derive from clone RP11-276K9, AC087790 [Drafting center: WIBR] to establish the overlap with the next BAC in our tiling path. Bases 179373-181312 derive from finished clone CTD-2651B20, AC051619 [Drafting center: UMMSC] in order to give overlap required for determining long range
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   On Feb 20, 2002 this sequence version replaced gi:18653547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (20-FEB-2002) Multimegabase Sequencing Center, Institute for Systems Biology, 4225 Roosevelt Way NE, Suite 200, Seattle, WA
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Center code: UWMSC
Web site: http://chroma.mbt.washington.edu/msg_www
Contact: leerowen@systemsbiology.org
Contact: Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequencing vector: pUC18; L08752
Chemistry: Dye-terminator Big Dye; 90% of reads
Chemistry: Dye-primer Big Dye; 10% of reads
Assembly program: Phrap; version 0.990399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone lib="RPCI human BAC library 11"
/note="This clone overlaps CTD-2014N11 AC090888 and
RP11-276K9 AC087790. Data from overlapping BACs were
and the consensus sequence determined from RP11-10;
the extent posible."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="low quality data"
40470. .40820
/note="sequence data generated from subcloned PCR product"
53030. .53480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Madan,A., Qin,S., Baradarani,L., Birditt,B., Bloom,S., Dors,M., Fleetwood,P., Kaur,A., Madan,A., Nesbitt,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="sequence data generated from 86982..86983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="genomic DN
/db_xref="taxon:9606"
/chromosome="15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organiem="Homo sapiens"
/mol_type="genomic DNA"
                                174237. .179372

(note="overlap with RP11-276K9, AC087790. This sequence data was added to establish the overlap between the BACs in the tiling path"
                                                                                                                                         /note="low quality data"
100981. .101003
/note="low quality data"
                                                                                                                                                                                                                                                                                              98260. .98420
                                                                                                                                                                                                                                                                                                                                                   96830. .97420
                                                                                                                                                                                                                                                                                                                                                                                                         95610. .96030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="overlap with CTD-2014N11, AC090888"
36107. .36120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="RP11-109D20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                               /note="sequence data generated
                                                                                                                                                                                                                                                          /note="single clone coverage"
                                                                                                                                                                                                                                                                                                                                                                              /note="sequence data generated
                                                                                                                                                                                                                                                                                                                                                                                                                                 note="low quality data"
                                                                                                                                                                                                                                                                                                                                                                                       from
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               subcloned
                                                                                                                                                                                                                                                                                                                              subcloned
                                                                                                                                                                                                                                                                                                                                                                                       subloned PCR product"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCR product"
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1-109D20 to
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Best Local Similarity
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Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M.,
Baker, J., Baldwin, J., Barna, N., Beckerly, R., Benn, J., Brown, A.,
Castle, A., Cerny, J., Colangelo, M., Collins, S., Collymore, A.,
Cooke, P., DeArellano, K., Depayre, B., Devon, K., Dewar, K.,
Domelan, L., Doyle, M., Ferreira, P., Fitzhugh, W., Forrest, C.,
Funke, R., Gage, D., Galagan, J., Gardyna, S., Gilbert, D., Grant, G.,
Hagos, B., Heaford, A., Horton, L., Howland, J. C., Jones, C., Kann, L.,
Karatas, A., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P.,
Marquis, N., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J.,
Meldrim, J., Molla, M., Morris, W., Morrow, J., Mychaleckyj, J.,
Naylor, J., Niloff, M., O'Connor, T., O'Donnell, P., Pavlin, B.,
Peterson, K., Pollara, V., Riley, R., Roberts, D., Roy, A., Severy, P.,
Stange-Thomann, N., Stojanovic, N., Stone, C., Subramanian, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
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                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                         Hominidae; Homo
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/note="overlap with CTD-2651B20, AC051619. This data is added to give overlap for long range contiguity."
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Pred. No. 1.:
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Submitted (28-AUG-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Apr 20, 2000 this sequence version replaced g1:6056272. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tesfaye, S., Torruella-Miller, I., Vassiliev, H., Vo, A., Wagner, A., Wheeler, J., Wu, X., Wyman, D., Ye, W.J. and Zody, M.
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Center clone name: 163 P 10
Center clone name: 163 P 10
Center clone name: 163 P 10
Center clone name: Statistics
Sequencing vector: M13; M77815; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.960731
Consensus quality: 108837 bases at least Q40
Consensus quality: 130230 bases at least Q30
Consensus quality: 145227 bases at least Q20
Consensus quality: 145227 bases at least Q20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             as soon as it is available be preserved.
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Insert size: 155134; sum-of-contigs
Quality coverage: 3.2 in Q20 bases; agarose-fp
Quality coverage: 3.3 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: sequence submissions@genome.wi.mit.edu
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/mol_type="genomic_DNA"
/db_xref="taxon:9606"
/chromosome="15"
                                                                     organism="Homo sapiens"
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                                                            Score 411.8; DB 14;
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Dodge, S., Faro, S., Ferreira, P., FitzBugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Karatas, A., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Liu, G., MacLean, C., Macdonald, P., Marquis, N., Matthews, C., McCarthy, M., McBwan, P., McKernan, K., McPheeters, R., Meldrin, J., Meneus, L., Mihova, T., Menga, V., Murphy, T., Naylor, J., Nguyen, C., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Nell, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Semann, S., Severy, P., Sougnez, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Travers, M., Travis, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A., and Zody, M.
Submitted (24-JAN-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA Con Mar 16, 2001 this sequence version replaced gi:12408501. All repeats were identified using RepeatMasker:
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Homo sapiens chromosome 15 clone RP11-276K9 map 15, WORKING DRAFT
SEQUENCE, 13 unordered pieces.
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Birren,B., Linton,L., Nusbaum,C. and Lander,E.
Homo sapiens chromosome 15, clone RP11-276K9
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HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP
Homo sapiens (human)
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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misc_feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOTE: This is a 'working draft' sequence. It currently consists of 13 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Insert size: 180000; agarose-fp
Insert size: 170244; sum-of-contigs
Quality coverage: 5.7 in Q20 bases; agarose-fp
Quality coverage: 6.0 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequencing vector: Plasmid; n/a; 100% of reads Sequencing vector: Plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.960731 Consensus quality: 165906 bases at least Q40 Consensus quality: 16597 bases at least Q30 Consensus quality: 165957 bases at least Q30
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Center: Whitehead Institute/ MIT Center for Genome Research
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6192
                                                                                                                   /note="assembly_fragment clone_end:SP6
                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="genomic DNA"
                                  note="assembly_fragment"
                                                                                                                                                         /clone lib="RPCI-11 Human
L. .6091
                                                                                                                                                                                                                          /db_xref="taxon:9606"
/chromosome="15"
estimated_length=100
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                                                                                                                                                                                          clone="RP11-276K9"
                                                                                                                                                                                                                                                                                                                            37826: gap of 100 bp
170053: contig of 32227 bp in length
170153: gap of 100 bp
171444: contig of 1291 bp in length.
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6191: gap of 100 bp
7986: contig of 1795 bp in length
8086: gap of 100 bp
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ig of 26167 bp
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g of 19580 bp
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g.of 20366 bp
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         CCCAGCCCGGCATGCCGCAGGCTTCAGCGTTCCACTGCTCATCGTTATTCTAGTGTTTT 140764
                                                                                                                                                                                                                                                GAGGTGCAGGACTCAGACTTCACCAGCCCACTCGGTCCCAGCCTTGTACGCAAAGAGACG 180
                                                                                                                                                                                                                                                                                                                   CTCTGTCGGTACCAACCCCAGAGCGTTGAGAGCAGCCACCTCCACGCTTCCTTAACGGA 120
                         CCCAGCCCCGGCATGCCGCAGGCTTCAGCGTTCCACTGCTCATCGTTATTCTAGTGTTTT 360
                                                                           CGTGCAGCACTCGGCCGGCGTGCAGCATGACCCTGTGGAACGGCGTACTGCCTTTTTACC 140704
                                                                                                 CGTGCAGCACTCGGCCGGCGTGCAGCATGACCCTGTGGAACGGCGTACTGCCTTTTTACC 300
                                                                                                                                             GAGGTGCAGGACTCAGACTTCACCAGCCCACTCGGTCCCAGCCTTGTACGCAAAGAGACG 140584
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L70154. .171444
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1314. .71413
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11460. .111559
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70054. .170153
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98.3%;
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Pred. No. 2.4e-62;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 14;
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AX714511/c
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RESULT 12
AK056896/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 397;
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
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                                                                      2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isogai,T., Sugiyama,T., Otsuki,T., Wakamatsu,A., Sato,H., Ishii,S.,
Yamamoto,J.I., Isono,Y., Hio,Y., Otsuka,K., Nagai,K., Irie,R.,
Tamechika,I., Seki,N., Yoshikawa,T., Otsuka,M., Nagahari,K. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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AX714511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent: EP 1293569-A 1195 19-MAR-2003;
Helix Research Institute (JP) ; Resear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTCGATCCCCACCGCCACAGGCGTCCTGTGCCTCTTCCTCGGAGGGGCCGTGGTGAGTC
                                                                                                                                                                                                                                                                                                                                                                                    GCCAGGAGAGAGGGGCTCACCTCTTATCCTCGGCGACCCACTGCACAAGCAGGCCGCTC
                                                                                                                                                                                                                                                                                                      TCCCAGACTTAAAATGTATCACCACTAACCTGTGAGGGGGACCCAATCTGGACTCCTTCC 1254
                                                                                                       GTCTCCTGGGGCGATCTGTAAATAAACCTTTTTTTCTTTTGTTTTTT 1421
                                                                                                                                           CAGGAAGGGCACTGAGCGCTGCTGGCGCGAGGCCTCGGACATCCGCAGGCACCAGGGAAAA
                                                                                                                                                           CAGGAAGGGCACTGAGCGCTGCTGGCGCGAGGCCTCGGACATCCGCAGGCACCAGGGAAA 1374
                                                                                                                                                                                                              CCGCCTTGGGACATCGCAGGCCGGGAAGCAGTGCCCGCCAGGCCTGGGCCAGGAGAGCTC
                                                                                                                                                                                                                                CCGCCTTGGGACATCGCAGGCCGGGAAGCAGTGCCCGCCAGGCCTGGGCCAGGAGAGCTC 1314
                                                                                                                                                                                                                                                                                 TCCCAGACTTAAAATGTATCACCACTAACCTGTGAGGGGGACCCAATCTGGACTCCTTCC
                                                                                                                                                                                                                                                                                                                                                    GCCAGGAGAGAGGGGCTCACCTCTTATCCTCGGCGACCCACTGCACAAGCAGGCCGCTC
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/mol_type="unassigned DN
/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 391; DB 6;
Pred. No. 1.9e-58;
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Ota, T., Suzuki, Y., Nishikawa, T., Otsuki, T., Sugiyama, T., Irie, R., Steine, A., Hayashi, K., Sato, H., Nagai, K., Kimura, K., Makita, H., Sekine, M., Obayashi, M., Nishi, T., Shibahara, T., Tanaka, T., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamura, Y., Nagahari, K., Murakami, K., Yasuda, T., Iwayanagi, T., Wagateuma, M., Shiratori, A., Sudo, H., Hosoiri, T., Kawai, Y., Kodaira, H., Kondo, H., Sugawara, M., Takahashi, M., Kanda, K., Yokoi, T., Furuya, T., Sugawara, M., Takahashi, M., Kanda, K., Yokoi, T., Furuya, T., Yamazaki, M., Ninomiya, K., Ishibashi, T., Yamashita, H., Murakawa, K., Pujimori, K., Tanai, H., Kimata, M., Watanabe, M., Murakawa, K., Pujimori, K., Tanai, H., Kimata, M., Watanabe, M., Hiraoka, S., Cohiba, Y., Ishida, S., Ono, Y., Takiguchi, S., Watanabe, S., Yosida, M., Hotuta, T., Kumano, J., Kanchori, K., Takahashi, Pujii, A., Yosida, H., Tanase, T., Nomura, Y., Togiya, S., Komai, F., Hara, R., Takeuchi, K., Arita, M., Imose, N., Musashino, K., Yuuki, H., Oshima, A., Sasaki, N., Aotsuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Shiohata, N., Sano, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Shiohata, N., Sano, S., Yoshikawa, Y., Matsunawa, H., Kohima, A., Tarashina, Y., Suzuki, O., Nakagawa, S., Senoh, A., Mizoguchi, H., Gathi, H., Watanabe, T., Sugiyama, A., Takemoto, M., Takami, S., Fujimori, Y., Komataki, M., Watanabe, T., Ozaki, K., Hirao, M., Ohmori, Y., Kawabata, A., Hikiji, T., Kobatake, N., Inagaki, H., Irao, M., Ohmori, Y., Kawabata, A., Hikiji, T., Kobatake, N., Nakajima, Y., Mizuno, T., Morinaga, M., Sasaki, M., Togashi, T., Nakami, S., Shioha, K., Shirai, Y., Takahashi, Y., Sasaki, M., Togashi, T., Nakajima, Y., Kikuchi, H., Masuho, Y., Yamashita, R., Nakagawa, T., Ohmora, N., Xikuchi, H., Masuho, Y., Yamashita, R., Nakagawa, T., Ohmora, N., Xikuchi, H., Nasuho, Y., Yamashita, R., Nakagawa, T., Nakagawa, T., Ohmora, N., Xikuchi, H., Nasuho, Y., Yamashita, R., Shuma, M., Yada, T., Nakagawa, K., Ohmora, N., Xikuchi, H., Nasuho, Y., Yamashita, R
                                                                              Isogai, T., Otsuki, T. and Sugiyama, T.

Isogai, T., Otsuki, T. and Sugiyama, T.

Direct Submission

Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute,

Renomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan

(E-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986)

NEDO human cDNA sequencing project supported by Ministry of

Economy, Trade and Industry of Japan; cDNA full insert sequencing:

Research Association for Biotechnology (RAB); cDNA 1ibrary

construction: Helix Research Institute (HRI) (supported by Japan

Key Technology Center etc.); 5'-& 3'-end one pass sequencing: RAB,

HRI, and Biotechnology Center, National Institute of Technology and

Evaluation; clone selection for full insert sequencing: RAB and
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Kusano,J., Watanabe,M., Fujimori,K., Tanai,H., Ishida,M.,
Yamashita,H., Chiba,Y., Sugiyama,T., Irie,R., Otsuki,T., Sato,H.,
Wakamatsu,A., Ishii,S., Yamamoto,J., Isono,Y., Kawai-Hio,Y.,
Saito,K., Nishikawa,T., Kimura,K., Matsuo,K., Nakamura,Y.,
Sakita,M., Kikuchi,H., Kanda,K., Wagatsuma,M., Takahashi-Fujii,A.,
Oshima,A., Sugiyama,A., Kawakami,B., Suzuki,Y., Sugano,S.,
Nagahari,K., Masuho,Y., Nagai,K. and Isogai,T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2009 DD mRNA linear Homo sapiens cDNA FLJ32334 fis, clone PROST2005426. AK056896
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
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Location/Qualifiers
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/organism="Homo sapiens"

COMMENT

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AC009700
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Best Local (
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                                                                                                                                                                                                                                                                                                                                 Homo sapie
SEQUENCE,
AC009700
Birren,B., Linton,L., Nusbaum,C., Lander,B., Allen,N., Anderson,M., Baker,J., Baldwin,J., Barna,N., Beckerly,R., Benn,J., Brown,A., Castle,A., Cerny,J., Colangelo,M., Collins,S., Collymore,A.,
                                                                                                       1 (bases 1 to 156534)
1 (bases 1 to 156534)
Birren,B., Linton,L., Nusbaum,C. and Lander,E.
                                                                                                                                                Hominidae; Homo.
1 (bases 1 to 156534)
                                                                                                                                                                                                                                                                     Homo
                                                                                    Unpublished
                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                   Homo
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                                                                  (bases 1 to 156534)
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/translation="MATIGHTPEPPYAGPKPTPPMDTTLASIIMIFLTALATFIVILPG
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GGYMLLATGIFOLLALLFFSMATSLTSPCPLHLGASVLHTHHGPAFWITLTTGLLCVL
LGLAMAVAHMOPHRLKAFFNQGSVDEDPMLEWSPEEGGLLSPRYRSMADSPKSQDIPL
SEASSTKAYCKEAHPKDPDCAL"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="prostate"
/clone_lib="PROST2"
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/db_xref="taxon:9606"
/clone="PROST2005426"
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97.5%;
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RP11-163P10 map 15,
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Cooke, P., DeArellano, K., Depayre, B., Devon, K., Dewar, K., Donelan, L., Doyle, M., Ferreira, P., FitzHugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardyna, S., Gilbert, D., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J. C., Jones, C., Kann, L., Karatas, A., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Karatas, A., McBwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrin, J., Molla, M., Morris, W., Morrow, J., Mychaleckyj, J., Naylor, J., Niloff, M., O'Connor, T., O'Donnell, P., Pavlin, B., Peterson, K., Pollara, V., Riley, R., Roberts, D., Roy, A., Severy, P., Stange-Thomann, N., Stojanovic, N., Stone, C., Subramanian, A., Tesfaye, S., Torruella-Miller, I., Vassiliev, H., Vo, A., Wagner, A., Wheeler, J., Wu, X., Wyman, D., Ye, W.J. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (28-AUG-1999) Whitehead Institute/MIT Center for Research, 320 Charles Street, Cambridge, MA 02141, USA On Apr 20, 2000 this sequence version replaced gi:6056272. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTE: This is a 'working draft' sequence. It currently consists of 15 contigs. The true order of the pieces is not known and their order in this sequence record is
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67374: contig
67474: gap of
79534: contig
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36609:
45279:
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56851:
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95532:
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1269: gap of
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5: contig of 2066 bp in length
5: gap of 100 bp
8: contig of 2263 bp in length
8: gap of 100 bp
6: contig of 3418 bp in length
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6: gap of 100 bp
7: contig of 6317 bp in length
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of 15798
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of 8505 bp
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21847. .30351
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/clone_lib="RPCI-11 Human
j. .1169
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/db_xref="taxon:9606"
/chromosome="15"
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120901: gap of 100 bp
2 156534: contig of 35633 bp in length.
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56952. .67374
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36510. .36609
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i270. .3335
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KEYWORDS
SOURCE
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Matches 397; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 334 from Patent
AX405919
AX405919.1 GI:21439277
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tang,Y.T., Liu,C., Zhou,P., Asundi,V., Zhang,J., Zhao,Q.A., Ren,F.,
Xue,A.J., Yang,Y., Wehrman,T. and Drmanac,R.T.
Xovel nucleic acids and polypeptides
Patent: WO 0222660-A 334 21-MAR-2002;
HYSEQ, INC. (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AX405919
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LALLFESMATSLTSPCPLHIGASVLHTHHGPAFWITUTTGLLCVLLGLAWAVAHRUG
HRLKAFFNQSVDEDPMLEWSPEEGGLLSPRYRSWADSPKSQDIPLSBASSTKAYCKBA
HPKDPDCAL"
                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="unassigned DNA"
/db_xref="taxon:9606"
441. .1472
                                                                                                                                                                                                                                                                                                                                                       /note="unnamed protein product"
/codon_start=1
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Pred. No. 1e-58;
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Query Match Best Local Similarity

25.1%;

Score Pred.

356.4; DB 6; No. 2.3e-52;

Length 1636;

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                                                                                                                                                                              GAAGGCTTTCTTCAACCAGAGTGTGGATGA 1306
                                                                                                                                                                                                           TCGCACCCTTCTGGACCAAAGCGCCAAGGA 1129
                                                                                                                                                                                                                                                                       CCTGTGCCTCTTCCTCGGAGGGGCCGTGGTGAGTCTCCAGTATGTTCGGCCCAGCGCTCT
                                                                                                                                                                                                                                                                                                   CGCTTCTGTGCTGCATACTCACCATGGGCCTGCCTTCTGGATCACATTGACCACAGGACT
                                                                                                                                                                                                                                                                                                                               CTCCTCCGCGCTCACCACTCAGTACGGCGCCCCCCTTCTGGGTCACGCTGGCAACCGGCGT
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                                                                        MGC:35310
                                             GI:20987583
               (human)
                                                                      1923 bp mRNA linear PRI 30-J
of Drosophila Numb-interacting protein,
O IMAGE:5177619), complete cds.
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cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genom
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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Strauberg, R.L., Peingold, B.A., Grouse, L.H., Derge, J.G.,

Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Altechul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,

Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

Scheet, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,

Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,

MocKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,

Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,

Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,

Bouffard, G.G., Blakesley, R.W., Touchman, J. W., Green, E.D.,

Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,

Butterfield, Y.S., Krzywinski, M.I., Skalska, J., Smailus, D.E.,

Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 ., Wagner,L., Shenmen,C.M., Schuler,G.D., Buetcw,K.H., Schaefer,C.F., Bhat,N.K.,

Direct Submission
Submitted (06-MAY-2002) National Institutes of Health, Mammalian Submitted (06-MAY-2002) National Cancer Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,

Email: cgapbs-r@mail.nih.gov Tissue Procurement: Life Technologies, Inc. NIH-MGC Project URL: http://mgc.nci.nih.gov

Genome

Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 51 Row: o Column: 3
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 21389332 found

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EGCEERWAEHTGDSPRPLRGRCTGRLMRWGSKERRACGVRAMLPRLVSNSGLKRPSCL
DLPKCMDYRRDARAFFHLLEPTPCVTSRHTPLI"

밁 8 밁 8 밁 8 8 8 8 8 · 참 유 Ş 밁 S 밁 문 S 음 성 밁 S S 밁 밁 5 당 Query Match 25.1%; Best Local Similarity 63.9%; Matches 556; Conservative 1040 1117 1057 980 923 997 697 563 863 937 803 877 743 817 683 757 623 637 577 503 TACAGTGAACACCAACATCCTACAAAGCCTTCAGCGCAGCGCGCGTTACAGCCCGTGT 443 517 CGTCATCCTGCCTGGCATTCGGGGAAAGACGAGGCTGTTCTGGCTGCTTCGGGTGGTGAC 263 CAGCATGACCCTGTGGAACGGCGTACTGCCTTTTTACCCCCAGCCCGGCATGCCGCAGG 322 CAGTCTGTTCATAGGCGCAGAAATTGTGGCTGTGCACTTCAGTGCAGAATGGTTCGTGGG CCTGTGCCTCTTCCTCGGAGGGGCCGTGGTGAGTCTCCAGTATGTTCGGCCCAGCGCTCT GAAGTTCACACCGAGTAGCCCTTGCGGCCTGTACCACCAGTACCACCTGGCGGGACACTA CGCGGAGTACGCGAACGCACTGGAGAAGGGGCTGCCGGACCCAGTGCTCTACCTGGCGGA 742 TGGGCTGCAGGTCGGGCTGGAGGGAGCACACACACTCACAGGGACCCCCGTGCAGCA CGGTCTGCTCGTGGGGCCTGGAGGGCATTAATATTTACACTCACAGGGGACCCCCAGTGCATCA GATGGACACCACTTTGGCCAGCATCATCATGATCTTTCTGACTGCACTGGCCACGTTCAT CTTCAGCGTTCCACTGCTCATCGTTATTCTAGTGTTTTTTGGCTCTAGCAGCAAGCTTCCT GCTGTGTGTGCTGCCTGGCCTATGGCGGTGGCCCACAGGATGCAGCCTCACAGGCT CGCTTCTGTGCTGCATACTCACCATGGGCCTGCCTTCTGGATCACATTGACCACAGGACT GGCTCTGCTCTTCTTCTCCATGGCCACATCACTCACCTCACCCTGTCCCCTGCACCTGGG CACGCCGGCCCCCTCTACGGAGGCCTGGCACTGCTGACCACCGGAGCCTTCGCGCTCTT GCTGAACGAGACCATTGACTACAACGAGCAGTTCACCTGGCGTCTGAAAGAGAATTACGC CCAGGTCAGCACCAACACCATCATACAAGGCCTTCAGTTCTGAGTGGATCAGCGCTGATAT CAAGATGGCTACTTTGGGGACACACATTCCCCCTTCTATGCTGGCCCCAAGCCAACCTTCCC CTCCTCCGCGCTCACCACTCAGTACGGCGCCCCCCTTCTGGGTCACGCTGGCAACCGGCGT ce---eeercriceccrreecricexrcrcraecereccicreccicecricecciaec CATGCCTGTGCTGGTATATGGTGGCTACATGCTATTGGCCACGGGCATCTTCCAGCTGTT ceccrceeccacecrareeerecerricrecrrcreecrcrcrccaacerecrecrcrc GAAGTTCACTCCAAGAAGCCCCATGTGGCCTATACCGCCAGTACCGCCTGGCGGGACACTA TGAGGAGTATGCAAAGGCTCTGGAGAAGGGGCTGCCAGACCCTGTGTTGTACCTAGCTGA GCTGAATGAGACCATCAATTACAACGAGGAGTTCACCTGGCGCCTGGGTGAGAACTATGC CAGCTTATTCATCGGGGCTGCAATCCTGGCTGTGAATTTCAGTTCTGAGTGGTCTGTGGG Score 356.4; DB 8; Length Pred. No. 2.2e-52; O; Mismatches 311; Indels Length 1923; u --Gaps 1099 1176 1039 1116 979 1056 922 862 936 802 876 816 682 756 622 562 502 576 456 996 696 636 442

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TCGCACCCTTCTGGACCAAAGCGCCAAGGA 1129

Db 1237 GAAGGCTTTCTTCAACCAGAGTGTGGATGA 1266

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SUMMARIES

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ALIGNMENTS

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Human; transmembrane protein; cell proliferation disorder; myeloma; reproductive disorder; smooth muscle disorder; neurological disorder; arteriosclerosis; leukaemia; acquired immunodeficiency syndrome; AIDS; allergy; ovulatory defect; angina; hypertension; stroke; epilepsy; Alzheimer's disease; Tourette's disorder; ss.

Homo sapiens.

22-MAR-1999; 99US-0125537P. 16-JUN-1999; 99US-0139565P. 22-MAR-2000; 2000WO-US007817. 28-SEP-2000. WO200056891-A2. /*tag= Location/Qualifiers 267. .1229 þ

Yue H, Lal P, Tang YT, Hillman JL, Reddy R, Baughn MR, Lu DAM, Azimzai Y, Yang J; Bandman O;

(INCY-) INCYTE PHARM INC.

WPI; 2000-579485/54. P-PSDB; AAB18992.

New human transmembrane proteins are used to treat a disease or condition associated with decreased expression of functional HTMP e.g. Tourette's disorder, angina and leukemia.

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Matches 1421;
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Local Similarity 100.0%; Pred. No. 0;
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ADL06425 standard; CDNA; 1450 ВP

ADL06425;

20-MAY-2004 (first entry)

Human tumour-associated antigenic target (TAT) cDNA sequence #5.

Human; tumour-associated antigenic target; cytostatic; gene; 8 TAT;

WO2004016225-A2

26-FEB-2004.

19-AUG-2003; 2003WO-US025892.

19-AUG-2002; 2002US-0404809P.
21-AUG-2002; 2002US-041545P.
23-SEP-2002; 2002US-0413192P.
15-OCT-2002; 2002US-0419008P.
15-NOV-2002; 2002US-0426847P.
02-JUL-2003; 2003US-0484959P.

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Matches 1421;
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ABL90535 standard; CDNA; 1474

24-MAY-2002 (first entry)

Human polynucleotide SEQ ID ŏ 1097.

RESULT 3
ABL90535
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OS Homo Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antibacterial; antifungal, antiparastic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder; neurological disease; infection; human; secreted protein; gene; ss.

sapiens

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The invention relates to novel genes (ABL89449-ABL90853) and proteins CC (ABB890440-ABB90444) useful for preventing, treating or ameliorating CC medical conditions e.g. by protein or gene therapy. The genes are CC isolated from a range of human tissues disclosed in the specification. CC The nucleic acids, proteins, antibodies and (ant) agonists are useful in CC the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and CC ovarian cancer and other cancers of the adrenal gland, bone, bone marrow, CC breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune CC disorders e.g. Addison's disease, allargies, autoimmune haemolytic CC anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, CC multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) CC cardiovascular disorders such as myocardial ischaemias; (d) wound healing CC; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) CC infectious diseases such as vival, bacterial, fungal and parasitic CC infections. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly CC from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1474 BP; 292 A; 480 C; 404 G; 296 T; 0 U; 2 Other;
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                                                                                                                                                                                                                                                                                                                                             The present sequence is the coding sequence of human CASB618 protein. The gene for human CASB618 is thought to be located on chromosome 15. The protein encoded by the present sequence and epitopes of the CASB618 protein (see AAB26327 to AAB26399) are useful in diagnosing the occurence of tumour cells and in vaccines for prophylactic and therapeutic treatment of cancers, particularly ovarian or colon cancer, autoimmune diseases and related conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 13; Page 61; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New human CASB618 polypeptide, useful as a vaccine for therapeutic treatment of cancers, particularly ovarian autoimmune diseases and related conditions.
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            The invention relates to an isolated nucleic acid molecule (cDNA) CC encoding a human secreted protein, representing one of 85 novel genes. CC Also included are recombinant vectors, host cells (expressing the CC protein), the secreted proteins (including their fragments, epitopes and homologues), an isolated antibody that binds specifically to the protein, CC diagnosing a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition based on the presence or absence of a mutation of in the nucleic acid and diagnosing a condition based on the presence or absence of a pathological condition (comprising determining the presence or amount of expression of the protein in a biological sample condition of the protein, preventing, treating or ameliorating a mount of expression of the protein, preventing, treating or ameliorating and condition based on the protein to a mammalian subject, comprising a binding partner to the protein to a mammalian subject, comprising a binding partner to the protein, the gene corresponding to the cDNA sequence, and identifying an activity in a biological assay (comprising expressing the nucleic acid in a cell, isolating the supernatant having the activity. The nucleic acids or protein in the supernatant having the activity. The nucleic acids or protein in the supernatant having the activity. The nucleic acids or protein in the supernatant having the activity. The nucleic acids of the protein in the supernatant having the activity. The nucleic acids condition, respirator, Muscular-Gen, Respiratory-Gen, Immunosuppressive, Cerebroprotective, Vasotropic, inventions of the present conventions of the present conventions and/or the present convention and/or the present conventions and/or the present conventions and/or the present conventions of the present conventions and/or the protein for the present conventions of the present conventions and/or the present conventions of the present conventions o
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Matches 1412
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8 8	968 GCTCGGCTAGGCTCCTCGGGGCTCACCACTCAGTACGGGGCGGCCTTCTGGGTCACGCT 1027
용 성	1028 GGCAACCGGCGTCCTGTGCCTCTTCCTCGGAGGGCCGTGGTGAGTCTCCCAGTATGTTTCG 1087
용 성	123
용 성	1148 GGGCTCACCTCTTATCCTCGGCGACCCACTGCACAAGCAGGCCGCTCTCCCAGACTTAAA 1207
음 성	1208 ATGTATCACCACTAACCTGTGAGGGGGACCCAATCTGGACTCCTTCCCCGCCTTGGGACA 1267
용 정	1268 TCGCAGGCCGGGAAGCAGTGCCCGCCAGGCCTGGGCCAGGAAGAGCTCCAGGAAGGGCACT 1327
8 8	1328 GAGCGCTGCTGGCGCGAGGCCTCGGACATCCGCAGGCACCAGGGAAAGTCTCCCTGGGGCG 1387
8 8	1388 ATCTGTAAATAAACCTTTTTTCTTTTGTTTTTT 1421
PACS PACS PACS	RESULT 6 AAC95564 ID AAC95564 standard; cDNA; 1460 BP. KX RC AAC95564;
ž li ž	entry)
X 23 3	Human secreted protein gene 44 SEQ ID NO:54.
X	Human; secreted protein; cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiucer; vulnerary; anticonvulsant; antibeterial; antifungal; antiparasitic; cardiant; cancer; immune disease; allergy; cardiovascular disorder; wound healing; infection; neurological disease; ss.
× 8 €	Homo sapiens.
B X B	WO200061596-A1. 19-OCT-2000.
\$ # X	06-APR-2000; 2000WO-US008983.
KR K	09-APR-1999; 99US-0128703P. 14-JAN-2000; 2000US-0176068P.
\$ \$ \$ \$	(HUMA-) HUMAN GENOME SCI INC. (ROSE) ROSEN C A.
X E X	Ruben SM, Komatsoulis G;
X	WPI; 2000-611865/58. P-PSDB; AAB52055.

Fifty nucleic acid molecules encoding human secreted proteins, useful in the prevention, treatment and diagnosis of cancer, immune disorders, cardiovascular disorders and neurological diseases.

505pp; English.

anticonvulsant; antibacterial; antifungal; antiparasitic; and cardiant.

The secreted proteins, polypeptides, antagonists and agonists may be useful in treating, preventing and/or diagnosing diseases and disorders such as cancer, particularly breast and ovarian cancer, and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital. Immune disorders such as Addison's disease, allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; cardiovascular disorders such as myocardial ischaemias, wound healing, neurological diseases such as cerebral anoxia and epilepsy; and infectious diseases such as cerebral anoxia and epilepsy; and infectious diseases such as viral, fungal and parasitic infections may also be treated using the proteins and polynucleotides of the invention. Sequences AAC95512 - AAC95520 and AAB52011 are used in the isolation and characterisation of the invention. proteins have activities dependent on the tissues and cells in which the expressed. Examples of their activities include cytostatic; are expressed; nostropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidabetic; antiinflammatory; antilicer; vulnerary; hepatotropic; antidabetic; antiinflammatory; antilicer; vulnerary; polynucleotide sequences AAC95521 - AAC95570 represent cDNA encoding 50 human secreted proteins AAB52012 - AAB52161. Sequences AAB52062 - AAB52103 represent alternative polypeptides encoded by the genes, and amino acid sequences with which they share homology. The genes and proteins have activities dependent on the tissues and cells in which they polynucleotides of the invention

Sequence 1460 BP; 292 A; 472 C; 398 G; 298 T; 0 U; 0 Other;

S 片 δ 문 S 문 문 8 S 문 δ Ś 밁 Matches 1413; Query Match Best Local : 314 301 254 241 194 181 361 134 121 74 61 CTCTGTCGGTACCCAACCCCCAGAGCGTTGAGAGCAGCCCACCCTCCACGCTTCCTTAACGGA 14 Similarity CGTGCAGCACTCGGCCGGCGTGCAGCATGACCCTGTGGAACGGCGTACTGCCTTTTTACC CCAAGGACGCGCTCTCCCGCGTCCAAGGCAGCCCCAGCTTGCTGGCTTGCCCTGCCCGCCTG GAGGTGCAGGACTCAGACTTCACCAGCCCACTCGGTCCCAGCCTTGTACGCAAAGAGACG TGGCTCTAGCAGCAAGCTTCCTGCTCATCTTGCCGGGGATCCGTGGCCACTCGCGCTGGT 420 CCCAGCCCCGGCATGCCGCAGGCTTCAGCGTTCCACTGCTCATCGTTATTCTAGTGTTTTT CTCTGTCGGTACCAACCCCAGAGCGTTGAGAGCAGCCCACCTCCACGCTTCCTTAACGGA CCCAGCCCCGCATGCCGCAGGCTTCAGCGTTCCACTGCTCATCGTTATTCTAGTGTTTT GAGGTGCAGGACTTCACCAGCCCACTCGGTCCCAGCCTTGTACGCAAAGAGACG Conservative 96.8%; 0; Score 1375.8; Pred. No. 0; Mismatches DB 3; Length 1460; 7; Indels ω • Gaps 373 360 313 180 120 300 240 133 73 60 253 193 ω

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541 CAGCGCGCGTTACAGCCCGTGTCGGTCTGCTCGTGGGCCTTGGAGGGCATTAATATTACAC 600

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TGGCTCTAGCAGCAAGCTTCCTGCTCATCTTGCCGGGGATCCGTGGCCACTCGCGCTGGT

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    Human; secreted protein; cancer; tumour; hyperproliferative disorder; autoimmune disorder; inflammation; angiogenic diseases; AIDS; acquired immunodeficiency syndrome; hepatitis; anaemia; wound healing
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drug screening; chromosome identification; chromosome mapping; cytostatic; gene therapy; antiinflammatory; immunomodulator; anantianaemic; vulnerary; chromosome 9p21; gene; ss.
                                               anti-HIV;
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03-OCT-2002

WO200277013-A2

26-MAR-2002; 2002WO-US009370

27-MAR-2001; 2001US-0278650P. 12-SEP-2001; 2001US-00950082. 12-SEP-2001; 2001US-00950083.

(HUMA-) HUMAN GENOME

Rosen Ç₽, MS

P-PSDB; 2003-040578/03 DB; ABR01306.

New human secreted proteins and nucleic acids, useful for detecting treating cancer or other hyperproliferative disorders, autoimmune disorders, inflammatory disorders, HIV disease, hepatitis or anemia.

Claim 21; Page 1345; 2474pp; English.

ABZ73281-ABZ73697 represent cDNAs corresponding to 391 human secreted protein genes, and ABP00347-ABP01363 represent the proteins they encode. CC ABZ73698-ABZ74687 represent human secreted protein genomic fragments. The CC invention also encompasses antibodies specific for the secreted proteins. CC the use of the secreted proteins in drug screening and recombinant vectors and host cells comprising a nucleic acid of the invention. The CC secreted proteins are thought to be involved in biological activities associated with cellular signalling, cellular differentiation, cell CC migration, prohormone activation and neurotransmitter activity. The secreted proteins, nucleic acids encoding them, antibodies or antibody fragments specific for the secreted proteins, and modulators of protein activity are useful for diagnosting or treating cancers or other CC dispresproliferative disorders. Additionally, the secreted proteins and their nucleic acids may also be used in the treatment of autoimmune CC (acquired immunodeficiency syndrome), hepatitis, anaemia, and to promote CC individuals from minute biological samples, as hybridsation probes, and CC as molecular weight markers. The present sequence represents a human cC secreted protein-encoding cDNA clone of the invention

Sequence 1460 BP; 292 A; 472 C; 398 G; 298 T; 0 U; 0 Other;

Query Match Best Local S Matches 1413 1413; 74 61 14 Н Similarity CTCTGTCGGTACCAACCCCAGAGCGTTGAGAGCAGCCCACCTCCACGCTTCCTTAACGGA CTCTGTCGGTACCAACCCCAGAGCGTTGAGAGCAGCCCACCTCCACGCTTCCTTAACGGA 96.8%; illarity 99.3%; Conservative (; Score 1375.8; ; Pred. No. 0; 0; Mismatches DB 8; 7; Indels Length 1460; ω --Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New human secreted proteins and nucleic acid molecules, useful for preparing a diagnostic or pharmaceutical composition for diagnosing, preventing or treating hematopoietic or hematologic disorders, e.g. anemia or hemophilia.
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12-SEP-2001; 2001US-00950082
12-SEP-2001; 2001US-00950083
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The invention comprises the amino acid and coding sequences of human secreted proteins. The DNA and protein sequences of the invention are useful for detecting, preventing, diagnosting, prognosticating, treating or ameliorating; haematopoietic or haematological disorders (e.g. anaemia and haemophilia); inflammatory disorders (e.g. inflammatory bowel disease and Crohn's disease); neoplastic disease (e.g. cancer and leukaemia); wound healing and disorders of epithelial cell proliferation; immune disorders (e.g. autoimmune disorders and asthmatic disorders); cardiovascular disorders (e.g. atherosclerosis and myocarditis); cardious disease (e.g. HIV/AIDS); endocrine disorders (e.g. diabetes); and gastrointestinal disorders (e.g. duodenal ulcers and gastrointestinal disorders (e.g. duodenal ulcers and gastrointestinal disorders (e.g. duodenal ulcers and protein of the invention.

Sequence 1460 B₽; 292 A; 472 C; 398 G; 298 , 0 ς, 0 Other

Best Local Similarity Matches 1413; Conserv Query Match Conservative 96.8%; Score 1375.8; Pred. No. 0; 0; Mismatches 0; В 7; 10; Indels Length 1460; ω • Gaps

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The invention relates to novel human genes (ABZ66891-ABZ68209) and the encoded secreted proteins (ABP99470-ABP99872) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and

New human secreted proteins encoded by genes contained in cDNA clones (e.g. HGCAC19), useful for preventing, treating or diagnosing e.g. AIDS, multiple sclerosis, herpes virus, leukemia, tick-borne encephalitis or West Nile fever.

Claim 7;

Page 1353;

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English.

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ABP99814.

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12-SEP-2001; 2001US-00950082
12-SEP-2001; 2001US-00950083
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Query Match
Best Local Similarity
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(a) cancer, e.g. breast and ovarian cancer and other cancers of the
adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver,
lung or urogenital; (b) immune disorders e.g. Addison's disease,
allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis,
diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid
arthritis and ulcerative colitis; (c) cardiovascular disorders such as
myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g.
cerebral anoxia and epilepsy; and (f) infectious diseases such as viral,
bacterial, fungal and parasitic infections
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2003US-0467199P.
2003US-0471306P.
2003US-0471306P.
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2003US-0485223P.
2003US-0485224P.
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composition of the polypeptide or instanced and molecule comprising a golynucleotide sequence given in the specification. Also described are: about 70, 80, 90 or 95% homologous to the first nucleic acid molecule, a second mucleic acid molecule comprising a second polynucleotide sequence that is at least to a promoter that drives the expression of the mucleic acid molecule or that hybridises to the first polynucleotide sequence under high const cell transformed, transfected, transduced or infected with the old of the mucleic acid molecule and composition or more composition comprising the nucleic acid molecule and conjecture, vector or host cell; a substantially purified polypeptide; an infamilial injected with the polypeptide; a pulpeptide composition comprising the polypeptide molecule and a carrier or buffer; a cell culture medium comprising the polypeptide; apply purified polypeptide; and comprising the polypeptide or transfected. Transduced, or infected host cell; swithsaining a series of simultaneously synthesised Nanodiscs transfected with the polypeptide; apply synthesisied Nanodiscs or synthasining a dynamic system; preparing a hydrophobic protein for determination of crystal structure; immunising a non-human animal; complement; determining the presence of the muleic acid molecule or its complement; determining the presence of an antibody to the polypeptide in a sample; an antibody specifically accive fragment; an antibody or modulations of the bacteriophage; anon-human animal injected with the comprising the bacteriophage; anon-human animal injected with the comprising the activity; of at least one polypeptide encoded by a nucleic acid molecule or its blody; datagnosting a bacterial and viral diseases, disorder, syndrome, or condition comprising the bacterial and viral diseases, disorder, syndrome, or condition of the polypeptide; a modulator and a carrier; gene therapy; prophylactic or therapeutic treatment of a subject; an isolated molecule, where the first heterologous mucleic acid molecules and the
                    S
                                                                       Matches
                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-JUL-2003;
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08-AUG-2003;
08-SEP-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New first nucleic acid molecule comprising a polynucleotide sequence given in the specification, useful in preparing a composition for diagnosing or treating e.g., cancer, psoriasis or ulcerative colitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; SEQ ID NO 138; 291pp; English.
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; 2003US-0493573P.
; 2003US-0493577P.
; 2003US-0505059P.
                                                                                                                                               BP; 168 A; 321 C; 260 G; 211 T; 0 U; 0 Other;
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Colon cancer; cytostatic; gene therapy; colorectal tumour; human; gene;

Human chr15.41.013.a nucleotide sequence

12-FEB-2004

(first entry)

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated nucleic acid that is expressed by human colon cancer cells, useful for treating colon cancer, for expressing the corresponding antigen, and for producing ligands that specifically bind such antigen.
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20-MAY-2002; 2002US-038138P.
10-JUN-2002; 2002US-0386747P.
20-NOV-2002; 2002US-0427564P.
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DB; ABR83679.
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                                                                CTGCTCGTGGGCCTGGAGGGCATTAATATTACACTCACAGGGACCCCAGTGCATCAGCTG
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RESULT 12
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XX AD085
XX AD085
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KW Gene
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PR 20-NC
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                                                                                                                                                                     New ligands, useful in diagnosing and treating colon, pancreas, breast, ovary or lung.
                                                                                                                                                                                                                                                                                                                  20-NOV-2003; 2003WO-US037206
                                                                                                                                                                                                                                                                                                                                             03-JUN-2004
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                                                                                                                                                                                                                                                                                                                                                                                             Unidentified
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The invention relates to a novel isolated nucleic acids and proteins overexpressed by human cancer cells. The invention further comprises: a primer mixture comprising primers that result in the specific amplification of the isolated nucleic acid; an antigen expressed by human cancer cells comprising an antigen encoded by the isolated nucleic acid, an antigen having the sequence of 273 or 234 amino acids, or a fragment or variant of both antigens; a monoclonal antibody or its antigen-binding fragment that specifically binds to a cancer antigen; a diagnostic kit, for detecting cancer, comprising the isolated nucleic acid, or a monoclonal antibody and a detectable label; a method of detecting cancer; and a method for treating cancer in a subject. The nucleic acids and

Example 6;

SEQ ID NO

54; 133pp;

English.

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RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  proteins, methods and compositions have cytostatic and immunostimulant activities. The nucleic acids may be used to treat disorders by gene therapy. The nucleic acids and proteins, methods and compositions are useful in diagnosing and treating cancer, e.g. cancer of the colon, pancreas, breast, ovary or lung, and in inducing an immune response. This polynucleotide represents a DNA sequence relating to the overexpressed nucleic acids of human cancer cells of the invention.
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99.7%;
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Best Local S
Matches 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is an expressed sequence tag (EST) for human CASSE protein. The gene for human CASSE18 is thought to be located on chromosome 15. CASSE18 protein and epitopes of CASSE18 protein (see ABB26327 to AAB26399) are useful in diagnosing the occurence of tumour cells and in vaccines for prophylactic and therapeutic treatment of cancers, particularly ovarian or colon cancer, autoimmune diseases and related conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 498 BP; 97 A; 166 C; 137 G; 98 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 32; Page 62; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human CASB618 polypeptide, useful as a vaccine for prophylactic therapeutic treatment of cancers, particularly ovarian or colon cancautoimmune diseases and related conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-MAR-1999;
01-SEP-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Epitope; human; CASB618; chromosome 15; tumour; vaccine; cancer; ovarian; colon; autoimmune disease; HLA_A0201; expressed sequence tag; EST; ss.
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               AGGAGAGCTCCAGGAAGGGCACTGAGCGCTGCTGGCGGAGGCCTCGGACATCCGCAGGC 1364
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                                                                     GACTCCTTCCCCGCCTTGGGACATCGCAGGCCGGGAAGCAGTGCCCGCCAGGCCTGGGCC
                                                                                                        CAGGCCGCTCTCCCAGACTTAAAATGTATCACCACTAACCTGTGAGGGGGACCCAATCTG
                                                                                                                                  CAGGCCGCTCTCCCAGACTTAAAATGTATCACCACTAACCTGTGAGGGGGACCCAATCTG
                                                                                                                                                                               AAGGACTGCAGCCAGGAGAGAGAGGGGGCTCACCTCTTATCCTCGGCGACCCACTGCACAAG
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Pred. No. 4e-103;
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                                                                                                                                                                                                                                                                                                                                                                                                           Length 498
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ABZ74587
ID ABZ74
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CCC ABZ7
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                                                                                                                                                                                                                    ABZ73281-ABZ73697 represent cDNAs corresponding to 391 human secreted protein genes, and ABP00947-ABP01363 represent the proteins they encode. ABZ73698-ABZ74687 represent human secreted protein genomic fragments. The cirvention also encompasses antibodies specific for the secreted proteins, the vectors and host cells comprising a nucleic acid of the invention. The corrected proteins are thought to be involved in biological activities associated with cellular signalling, cellular differentiation, cell migration, prohormone activation and neurotransmitter activity. The secreted proteins, nucleic acids encoding them, antibodies or antibody fragments specific for the secreted proteins, and modulators of protein cacivity are useful for diagnosing or treating cancers or other chyperproliferative disorders. Additionally, the secreted proteins and their nucleic acids may also be used in the treatment of autoimmune considered, inflammatory disorders, diseases involving angiogenesis, AIDS (acquired immunodeficiency syndrome), hepatitis, anaemia, and to promote wound healing. Nucleic acids of the invention may be used for chromosome indeptification, chromosome mapping, in gene therapy, for identifying individuals from minute biological samples, as hybridisation probes, and secreted protein genomic fragment referred to in the disclosure of the
Query Match 29.1
Best Local Similarity 98.6
Matches 417; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; secreted protein; cancer; tumour; hyperproliferative disorder; autoimmune disorder; inflammation; anglogenic diseases; AIDS; acquired immunodeficiency syndrome; hepatitis; anaemia; wound healing; drug screening; chromosome identification; chromosome mapping; cytostatic; gene therapy; antiinflammatory; immunomodulator; anti-HIV; antianaemic; vulnerary; chromosome 9p21; gene; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human secreted proteins and nucleic acids, useful for detecting or treating cancer or other hyperproliferative disorders, autoimmune disorders, inflammatory disorders, HIV disease, hepatitis or anemia.
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12-SEP-2001; 2001US-00950082.
12-SEP-2001; 2001US-00950083.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 2315-2316; 2474pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-040578/03
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                                                                                                                         Sequence 5033 BP; 1061 A; 1409 C; 1465 G; 1098 T;
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98.6%;
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                               Score 413.4; DB 8
Pred. No. 6.7e-93;
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                                                                         5033;
                                                                                                                                       Other;
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0; Mismatches

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Indels

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Gaps

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New human secreted proteins and nucleic acid molecules, useful for preparing a diagnostic or pharmaceutical composition for diagnosing,

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RESULT 15
ADC21005
ID ADC21
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ADC21
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12-SEP-2001; 2001US-00950082
12-SEP-2001; 2001US-00950083
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gastrointestinal disorder; duodenal ulcer; gastroenteritis;
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Query Match 29.1%;
Best Local Similarity 98.6%;
Matches 417; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5033 BP; 1061 A; 1409 C; 1465 G; 1098 T; 0 U; 0 Other;
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Search completed: January 21, Job time: 940 secs

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Match
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AIR21606 nk08al1.8
CK971974 4087846 B
CK979918 4111631 B
AIR26629 wk33e04.x
AI304327 QO57h06.x
BP396416 BP396416
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ALIGNMENTS

Query Match Best Local Matches 96	gene ORIGIN	TITLE JOURNAL COMMENT FEATURES SOURCE	REFERENCE AUTHORS TITLE JOURNAL PUBMED REFERENCE AUTHORS	RESULT 1 DQ050095 LOCUS DEFINITION ACCESSION VERSION VERSION KEYWORDS SOURCE ORGANISM
Query Match 67.8%; Score 963; DB 11; Length 963; Best Local Similarity 100.0%; Pred. No. 6.3e-236; Matches 963; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	/organism="Homo sapiens" /mol_type="genomic DNA" /db_xref="taxon:9606" /chromosome="15" <1>963 /locus_tag="HC18097"	Submitted Submitted Rockville, This seque them based alignment.	Hominidae; Homo. 1 (bases 1 to 963) Nielsen,R., Bustamante,C., Clark,A.G., Glanowski,S., Sackton,T.B., Hubisz,M.J., Fledel-Alon,A., Tanenbaum,D.M., Civello,D., White,T.J., Sninsky,J.J., Adams,M.D. and Cargill,M. A Scan for Positively Selected Genes in the Genomes of Humans and Chimpanzees (er) PLoS Biol. 3 (6), B170 (2005) 1586325 2 (bases 1 to 963) Nielsen,R., Bustamante,C., Clark,A.G., Glanowski,S., Sackton,T.B., Hubisz,M.J., Fledel-Alon,A., Tanenbaum,D.M., Civello,D., White,T.J., Sninsky,J.J., Adams,M.D. and Cargill,M.	DQ050095 Homo sapiens HC18097 gene, VIRTUAL TRANSCRIPT, partial sequence, genomic survey sequence. DQ050095 DQ050095.1 GI:66903294 GSS. Homo sapiens (human) Homo sapiens (human) Homo sapiens (hordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;

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This sequence was made by sequencing genothem based on alignment. Translation statements
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Group Phase I & II Team.

Analysis of the mouse transcriptome based on 1 of 60,770 full-length cDNAs

Nature 420, 563-573 (2002)

6 (bases 1 to 1594)

Adachi,J., Aizawa,K., Akahira,S., Akimura,T.,

Arakawa,T., Bono,H., Carninci,P., Fukuda,S., 1

Furuno,M., Hanagaki,T., Hara,A., Hayatsu,N., 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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1594 bp mRNA linear HTC 03-APR-2004 Mus musculus adult male colon cDNA, RIKEN full-length enriched library, clone:9030623N16 product:hypothetical protein, full insert
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    ., Arai,A., Ao, Fukunishi,Y., Hiramoto,K.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   with BamHI and XhoI. Vector: a modified pBluescript bulk excision from Lambda PLC I. Cloning sites, 5' e end: BamHI. Host: DH10B.
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ffbsspcglyfdynlagfikyaaftrwyafcfwilanallsmapelygglaltiffgaft
fgvfafasissyflchfrigsavltfyygasfwlflatgilslllggavvilhytrps
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putative"
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/mol_type="mRNA"
/strain="C57BL/6J"
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ACCCTTTTACCCCCAGCCCAGGCATGCCGCCAGCTTCAGCGTACCGCTGCTCATTGTTAT

CTCCTTCCCGGCCTTGGGACATCG	1070 GAGTCTCCAGTATGTTCGGCCCAGCGCTCTTCGCACCCTTCTGGACCAAAGCGCCAAAGGA 1129	767 GGCTTTGCTCACGCTGGCACCGCCTCGGCGTGCTCTCCTCGGAGGGGCGGTGGT 1469 950 TAGCGTGCCGCTTGCCCTCGCCTACGCTCTCGCCTTCGCCTCGATTTC 826 950 TAGCGTGCCGCTCTGCCCCTCGCCTACGCTCTCCGCCGCCTCACGACTACGGCGC 1009 950 TAGCGTGCCGCTCTGCCCCTCCGCCTAGGCCTCCACCACTCACGACGCGC 1009 1010 CGCCTTCTGGGTCACGCTGGCAACCGGCGTCCTGGCCTCTCCTCGGAGGGGCCGTGGT 1069 1010 CGCCTTCTGGGTCACGCTGGCAACCGGCGTCCTGGCCTCTTCCTCGGAGGGGCCGTGGT 1069 1011	530 AGCCTTCAGCGCAGCGCGTTACAGCCCGTGTCGGTCTCGTGGGGCCTGGAGGGCAT 589	350 TCTAGTGTTTTTGGCTCTAGCAGCAAGCTTCCTGCTCATCTTGCCGGGGATCCGTGGCCA 409
Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, N., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Shibata, K., Tagami, M., Tagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yamamura, T., Yasunishi, A., Yoshida, K., Toya, T., Yamamura, T., Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and Hayashizaki, The Institute of Direct Submitsed (10.7UL-2000) Yoshihide Hayashizaki, The Institute of Submitted (10.7UL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Physical and Chemical Research (RIKEN), Laboratory for Genome Riken Yokohama Institute, 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (B-mail:genome-res@gsc.riken.jp,	AUTHORS The PANTOM Consortium and the RIKEN Genome Exploration Research Group Phase I & II Team. TITLE Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs JOURNAL Nature 420, 563-573 (2002) 6 (bases 1 to 1309) REFERENCE 6 (bases 1 to 1309) AUTHORS Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Arai, A., Aono, H., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hiramoto, K., Hirawa, M., Harakawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M.,	Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer genome Res. 10 (11), 1757-1771 (2000) PUBMED 11076861 REFERENCE 4 AUTHORS The RIKEN Genome Exploration Research Group Phase II Team and the FANTOM Consortium. TITLE FUNCTIONAL Nature 409, 685-690 (2001) REFERENCE 5	 	Qy 1417 TTTTT 1421 Db 1304 TTTTT 1308 RESULT 4 AKCO8816 LOCUS AKCO8816 DEFINITION Mus musculus adult male stomach cDNA, RIKEN full-length enriched library, clone:2210403N03 product:hypothetical protein, full insert sequence. ACCESSION AKCO8816.1 GI:12843238

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a,S., Sasaki,N., Carninci,P.,
ai,T., Tashiro,H., Itoh,M.,
M., Nishine,T., Harada,A.,
M., Nishine,T., Kashiwagi,K.,
Ikegami,T., Kashiwagi,K.,
a,M., Ohara,E., Watahiki,M.,
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Fax:81-45-503-9216)
Please visit our web site (http://genome.gsc.riken.j
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DN831248 619 bp
MGC1.5.1.1.A11.R.1 NIH MGC_331
MGC1.5.1.1.1.A11, mRNA sequence.
DN831248 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Buthéria; Euarchontoglires; Primates; Catarrhini; Homo sapiens (human) GI:62639819 bp mRN 331 Homo sapiens linear ens cDNA clone

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Stevens, M. Wei, C., Gross, S.S., McPherson, J. and Brent, M.R.
Exhaustive RT-PCR and sequencing of all novel TWINSCAN predictions in human
(2005)
Unpublished (2005)
Contact: Brent, MR
Contact: Brent, MR
Laboratory of Computational Genomics
Washington University
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                                                                  CCCAGTGCTCTACCTGGCGGAGAAGTTCACACCGAGTAGCCCTTGCGGCCTGTACCACCA 781
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/clone lib="NIH MGC 331"
/clone lib="NIH MGC 331"
/note="Tissues: adrenal gland, bone marrow, brain
/note="Tissues: adrenal gland, bone marrow, brain
cerebellum, brain (whole), fetal brain, fetal liver,
heart, kidney, liver, lung (whole), placenta prostate,
salivary gland, skeletal muscle, testis, thymus, thyroid
gland trachea, uterus, spinal cord. First-stranded cDNA
made from pooled mRNA sources. PCR product is sequencing
directly, typically from the PCR primers."
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/db_xref="taxon:9606"
/clone="MGC1.5.1.1.1.All"
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Pred. No. 8.2e-147;
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Best Local S
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Stevens, M., Wei, C., Gr
Exhaustive RT-PCR and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Brent, MR
Laboratory of Computational Genomics
Washington University
Campus Box 1045, One Brookings Dr., St. Louis, MO 63130,
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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Email: brent@cse.wustl.edu
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  CCGTGGCCACTCGCGCTGGTTTTGGTTGGTGAGAGTTCTTCTCAGTCTGTTCATAGGCGC
                                                                           CATCGTTATTCTAGTGTTTTTTGGCTCTAGCAGCAAGCTTCCTGCTCATCTTGCCGGGGAT
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/note="tissues: postate, brain, fetal liver,
heart, kidney, liver, lung (whole), placenta prostate,
heart, kidney, liver, lung (whole), placenta prostate,
salivary gland, skeletal muscle, testis, thymus, thyroid
gland trachea, uterus, spinal cord. First-stranded cDNA
made from pooled mRNA sources. PCR product is sequencing
directly, typically from the PCR primers."
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/mol_type="mRNA"
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                                                                                                                                          Score 610.6; |
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MGC1.5.1.2.1.All.R.1 NIH MGC 331 Homo sapiens cDNA clone
MGC1.5.1.2.1.All, mRNA sequence.
DN930503
                                              Email: brent@cse.wustl.edu

All products are PCRed from first-strand cDNA made from pooled mRNA sources. PCR product is sequenced directly, typically from the PCR primers. All submitted sequences produced a high quality, spliced alignment to the genome or assembled into a contig that aligned to the genome. This alignment was not necessarily to the targeted locus. Legitimate, spliced sequences that resulted from mispriming to non-targeted cDNAs were also submitted. All data on all experiments can be found at http://genes.cse.wustl.edu/rtdb/.location/Qualifiers
                                                                                                                                                                                                                        Unpublished (2005)
Contact: Brent, MR
Laboratory of Computational Genomics
Washington University
Campus Box 1045, One Brookings Dr., St.
Tel: (314) 935-6621
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Stevens, M., Wei, C., Gross, S.S., McPherson, J. and Brent, M.R.
Exhaustive RT-PCR and seguencing of all novel TWINSCAN predictions
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Mammalia; Eutheria;
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/organism="Homo sapiens"
/mol_type="mRNA"
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                                     ACCESSION
VERSION
KEYWORDS
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                                                                                                                                                           RESULT 8
DN930502
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DEFINITION
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ORGANISM

EST DN930502 DN930502.1

GI:62924188

Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

DN930502 622
MGC1.5.1.2.1.A11.F.1 NIH MGC
MGC1.5.1.2.1.A11, mRNA Bequer

mRNA sequence.

331

Homo sapiens

CDNA

clone

EST 27-APR-2005

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                                                                                                                                CCTCTCCAACGTGCTGCTCCACGCCGGCCCCGCTCTACGGAGGCCTGGCACTGCTGAC 901
                                                                                                                                                                                                                                   GTACCACCTGGCGGGACACTACGCCTCGGCCACGCTATGGGTGGCGTTCTGCTTCTGGCT
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/tissue type="pooled"
/clone=Tib="NIH_MGC_331"
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/note="tissues: adrenal gland, bone marrow, brain
/notes="tissues: adrenal gland, brain
/notes="tissues: adrenal gland, brain
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Pred. No. 2.9e-143;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62 TAAGGGCATCCGTGGCCACTCGCGCTGGTTTTGGTTGGCTTTAGTTCTTCTCAGTCTGTT
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All products are PCRed from first-strand cDNA made from pooled mRNA sources. PCR product is sequenced directly, typically from the PCR primers. All submitted sequences produced a high quality, spliced alignment to the genome or assembled into a contig that aligned to the genome. This alignment was not necessarily to the targeted locus. Legithmate, spliced sequences that resulted from mispriming to non-targeted cDNAs were also submitted. All data on all experiments can be found at http://genes.cse.wustl.edu/rtdb/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Brent, MR
Laboratory of Computational Genomics
Laboratory of Computational Genomics
Laboratory of Computational Genomics
Campus Box 1045, One Brookings Dr., St. Louis, MO 63130, USA
Tel: (314) 935-6621
Tel: (314) 935-6621
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1 (bases 1 to 622)

Stevens,M., Wei,C., Greschaustive RT-PCR and
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                          ACCGAGTAGCCCTTGCGGCCTGTACCACCAGTACCACCTGGCGGGACACTACGCCTCGGC
                                                                                                           CGCGAACGCACTGGAGAAGGGGCTGCCGGACCCAGTGCTCTACCTGGCGGAGAAGTTCAC
                                                                                                                                                                 GACCATTGACTACAACGAGCAGTTCACCTGGCGTCTGAAAGAGAATTACGCCGCGGAGTA
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/mol_type="mRNA"
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/note="ftissues: adrenal gland, bone marrow, brain
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heart, kidney, liver, lung (whole), placenta prostate,
salivary gland, skeletal muscle, testis, thymus, thyroid
gland trachea, uterus, spinal cord. First-stranded cDNA
made from pooled mRNA sources. PCR product is sequencing
directly, typically from the PCR primers."
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Pred. No. 5.8e-143;
0; Mismatches 12;
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JOURNAL COMMENT
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AUTHORS
TITLE
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Seq primer: -40UP from Gibco
High quality sequence stop: 459.
Location/Qualifiers
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National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
Unpublished (1997)
Other_ESTs: nk08a11.y5
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                                                                                                                                                                                                                                                                                                                                                                    This read is a RESEQUENCE of a previously sequenced human clone Original clone citation: National Cancer Institute, Cancer Genome Anatomy Project (CARP). Tumor Gene Index This read has been verified (found to hit its original self in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA Sequencing by: Washington University Genome Clone distribution: NCI-CGAP clone distribution found through the I.M.A.G.E. Consortium/LLNL at: www-bio.llnl.gov/bbrp/image/image.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
Email: (Syapbs - Tomail.nih.gov
Tissue Procurement: L. Jeffrey Medeiros, M.D., Michael
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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                                                                                                                                                                                                                                                                                                                               correct orientation)
Insert Length: 741
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIB21606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA Library Arraying: Greg Lennon, Ph.D.
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    /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:1012892"
                                                                                                                                                                                                              organism="Homo sapiens"
|mol_type="mRNA"
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Best Local Similarity Matches 532; Conserv

Conservative

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Score 529.6; DB 1; Pred. No. 1.1e-124; 0; Mismatches 4;

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Gaps

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37.3%; 99.3%;

Query Match

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ACCESSION
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CK971974
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                                                                                                                                                     contact: Tad S. Sonstegard
Bovine Functional Genomics Laboratory
Animal and Natural Resources Institute
Bdlg. 200 Rm2A BARC-East, Beltsville, M
Tel: 3015048416
                                                                                                                                                                                                                                                                                                                                                                                                                               sequence.
CK971974
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4087846 BARC
                                                               Email: tads@anri.barc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
0.000925 using options -trim_alt "-trim_fasta. Vector iden
by cross_match using options -minmatch 12 -minscore 18
plate: 4 row: 8 column: 23
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Sonstegard, T.S., Van Tassell, C.P., Matukumalli, L.K., Harhay, G.P., Bosak, S., Rubenfield, M. and Gasbarre, L.C.
Production of EST from cDNA libraries derived from immunologically
                                     Seq |
High
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Mammalia; Eutheria;
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                     primer: CCCAGTCACGACGTTGTAAAACG
h quality sequence stop: 717.
Location/Qualifiers
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3015048414
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9BOV4_E23 5', mRNA
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                     CCTTCGCGCTCTTCGGGGTCTTCGCCTTGGCCTCCATCTCTAGCGTGCCGCT
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                                                                                                ACGIGCIGCICCACGCCGGCCCCCIACGGAGGCCCTGGCACTGCTGACCACCGGAG 909
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CCTTCGCGCTCTTCTCGGCTTCGCCTTCTATCTCCAGCGTGCCTCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /dev_stage="Multiple"
/lab_host="DH10B T1 phage resistant"
/clone_lib="BARC 9BOV"
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/clone="9BOV4_E23"
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Pred. No. 7.5e-124;
"" amatches 116;
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CK979918
CK979918.1
EST.
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Single pass sequencing. Bases called and trimmed with phred
0.00925 using options -trim_alt " -trim_fasta. Vector ident
by cross_match using options -minmatch 12 -minscore 18
Plate: 40 row; D column: 22
Seq primer: CCCAGTCACGACGTGTAAAACG
High quality sequence stop: 703.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Tad S. Sonstegard
Bovine Functional Genomics Laboratory
Animal and Natural Resources Institute
Bdlg. 200 Rm2A BARC-East, Beltsville, MD 20705,
Tel: 3015048416
Fax: 3015048414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Bovinae; Bos.

1 (bases 1 to 703)

Sonstegard, T.S., Van Tassell, C.P., Matukumalli, L.K., Harhay, G.P., Bosak, S., Rubenfield, M. and Gasbarre, L.C. Production of EST from cDNA libraries derived from immunologically Unpublished (2004)
ATTAATATTACACTCACAGGGACCCCAGTGCATCAGCTGAACGAGACCATTGACTACAAC 647
                                                                                                                                                                               GIGGCIGIGCACITCAGIGCAGAAIGGIICGIGGGIACAGIGAACACCAACACCIAC 527
                                                                                                                                                                                                                     CACTCGCGATGGTTCTGGTTGGTGAGAGTTCTTCTCAGCCTGTTCATAGGAGCAGAAATT 180
                                                            AAGGCCTTCAGCGTGGAACGCGTCCGAGCCCACGTCGGTCTGCATGTGGGCCTGGAAGGGC 300
                                                                                          GTGGCCGCGCACTTCAGCGCAGAATGGTCAGTCGGCAGCGTTAGCACCAAAACATCCTAC 240
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//lab_host="PH108 T1 phage resistant"
//clone lib="BARC 9BOV"
/note="Organ: Abomasum; Vector: pAgen-1; Site 1: EcoRV;
/site 2: Not1; Equimolar amounts of mRNA extracted from fundic and pyloric abomasums of 18 and 21 week old steers.
Exposure to Ostertagia ostertagi was initiated at 15 weeks of age. fundic and pyloric abomasum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="mRNA"
/strain="Holstein"
/db_xref="taxon:9913"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tissue_type="Pooled"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone="9BOV40_D22"
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83.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 522.2; DB 7; Length 703; Pred. No. 9e-123; O; Mismatches 113; Indels 0
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FEATURES Source	COMMENT	REFERENCE AUTHORS TITLE JOURNAL	ACCESSION VERSION KEYWORDS SOURCE ORGANISM	RESULT 12 AI826629/c LOCUS DEFINITION	9 6 6	\$ 4d	D Q	B &	8 8
Cation/Qualifiers 515 Cyanism="Homo sapie ol type="mRNA" ol type="mRNA" lone="IMAGE:2417406 ex="male" issue_type="normal b host="pp1108" lone_lib="NCI_CGAP_the="Organ: prostation normal prostate] h a modified poly), m normal prostate lot I - oligo(dT) p. ated to Eco RT adde	Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov Tissue Procurement: Michael J. Brownstein, M.D., Ph.D., Michael R. Emmert-Buck, M.D., Ph.D. CDNA Library Preparation: M. Bento Soares, Ph.D. CDNA Library Arrayed by: Greg Lennon, Ph.D. DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: www-bio.llnl.gov/bbrp/image/image.html Insert Length: 910 Std Error: 0.00 Seq primer: -40Up from Glbco High quality sequence stop: 467.	1 (bases 1 to 515) NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index Unpublished (1997)	AI826629.1 GI:5447300 BST. Homo sapiens (human) Homo sapiens Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.	AI826629	948 TCTAGOGIGCOGCTCTGCCCCCTCCGCCTAGGCTCCTCCGCCG 990	888 CTGGCACTGCTGACCGGAGCCTTCGCGCTCTTCGGGGTCTTCGCCTTGGCCTCGATC 947	828 TTCTGCTTCTGGCTCCCAACGTGCTGCTCCACGCCGCCCCCCCC	700 AMSSISTED COGNACCCAGINGTINACTICIA COGNAGA AGITICA CACCAGITA COCOTTOC 767	

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Query Match
Best Local Similarity
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AI304327
                                                                                                                                                                                                                                                                                                                                                                       AI304327 510 bp mRNA linear EST 01-FEB-1999 qo57h06.x1 NCI_CGAP_Co8 Homo sapiens cDNA clone IMAGE:1912667.3' similar to contains TAR1.t3 TAR1 repetitive element;, mRNA
                                                                                               Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                               Tissue Procurement: Christopher Moskaluk, M.D., Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                  NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
                                                                                                                                                                                                                      Hominidae; Homo
                                                                                                                                                                                                                                    Mammalia; Eutheria;
                                                                                                                                                                                                                                                        Eukaryota;
                                                                                                                                                                                                                                                                                                                           AI304327.1 GI:3988016
CDNA Library Preparation: M. Bento Soares, Ph.D.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGTAAATAAACCTTTTTTTTTTTTTTTTTTTTT 1421
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                                                                                                                                                                                                                                                      Metazoa;
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100.0%; Pr
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   BP396416
BP396416.1
EST.
                                     BP396416 Homo sapiens pancreatic islet Homo sapiens hbt10023 3', mRNA sequence.
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REFERENCE AUTHORS

TITLE

JOURNAL COMMENT

GI:58569059

cDNA clone EST 03-FEB-2005 SOURCE ORGANISM

KEYWORDS

VERSION

ACCESSION

RESULT 13 AI304327/c

DEFINITION Pocus S 日 S 밁 S 밁 5 В δ

1390

35

1330

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found through the I.M.A.G.E. Consortium/LLNL www-bio.llni.gov/bbrp/image/image.html Insert Length: 1487 Std Error: 0.00 Seq primer: -40UP from Gibco High quality sequence stop: 476.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     quality sequence stop: 476.
Location/Qualifiers
                                                                                          /clone_lib="NCI_CGAP_CO8"
/note="Organ: colon; 'Pector: pT773D-Pac (Pharmacia) with a modified polylinker; 1st strand cDNA was prepared from colon adenocarcinoma, and was then primed with a Not I - oligo(dT) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT773 vector. Library is normalized. Library was constructed by Bento Soares and M. Fatima Bonaldo. "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                            /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="IMAGE:1912667"
/tissue_type="adenocarcinoma"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:9606"
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Length
          510;
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1030

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515

ORIGIN

Matches 512;

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1210

1270 155

215

ACCGGCGTCCTGTGCCTCTTCCTCGGAGGGGCCGTGGTGAGTCTCCAGTATGTTCGGCCC 1093 CGCCTAGGCTCCTCCGCGCTCACCACTCAGTACGGCGCCGCCTTCTGGGGTCACGCTGGCA 1031 TTOGCGCTCTTCGGGGTCTTCGCCTTGGCCTCCATCTCTAGCGTGCCGCTCTGCCCGCTC GTAAATAAACCTTTTTTTTCTTTTGTTTTTT 1421 ATCACCACTAACCTGTGAGGGGGACCCAATCTGGACTCCTTCCCCGCCTTGGGACATCGC TCACCTCTTATCCTCGGCGACCCACTGCACAAGCAGGCCGCCTCTCCCAGACTTAAAATGT 1211 AGCGCTCTTCGCACCCTTCTGGACCAAAGCGCCAAGGACTGCAGCCAGGAGAGAGGGGGC 1151 TTCGCGCTCTTCGGGTCTTCGCCTTGGCCTCCATCTCTAGCGTGCCGCTCTGCCCGCTC GTAAATAAACCTTTTTTTTTTTTTTTTTT GCTGCTGGCGCGAGGCCTCGGACATCCGCAGGCACCAGGGAAAGTCTCCCTGGGGCGATCT 1391 AGGCCGGGAAGCAGTGCCCCGCCAGGCCTGGGCCAGGAGAGGCTCCAGGAAGGGCACTGAGC 1331 ATCACCACTAACCTGTGAGGGGGACCCAATCTGGACTCCTTCCCCGCCTTGGGACATCGC TCACCTCTTATCCTCGGCGACCCACTGCACAAGCAGGCCGCTCTCCCAGACTTAAAATGT AGCGCTCTTCGCACCCTTCTGGACCAAAGCGCCAAGGACTGCAGCCAGGAGAGAGGGGGC ACCGGCGTCCTGTGCCTCCTCCGGAGGGGCCGTGGTGAGTCTCCAGTATGTTCGGCCC CGCCTAGGCTCCTCCGCGCTCACCACTCAGTACGGCGCCGCCTTCTGGGTCACGCTGGCA AGGCCGGGAAGCAGTGCCCGCCAGGCCTGGGCCAGGAGGCTCCAGGAAGGGCACTGAGC GCTGCTGGCGCGAGGCCTCGGACATCCGCAGGCACCAGGGAAAAGTCTCCTGGGGCGATCT Conservative 35.9%; 0 Score 510; DB 1; L Pred. No. 1.2e-119; 0; Mismatches 0; Indels <u>.,</u> Gaps 151 211 271 331 391 451 971 91 1271 31 0

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REFERENCE
AUTHORS
TITLE
ACCESSION
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ORGANISM
                                                           RESULT 15
AI791844
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1 (bases 1 to 500)

Takeda, J., Jin, L. and Horikawa, Y.

Expression profile of mRNAs from human pancreatic islet tumors Unpublished (2005)

Contact: Yukio Horikawa
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     AI791844 505 bp mRNA linear EST 13-DEC-1999 mk08a11.y5 NCI CGAP Co2 Homo sapiens cDNA clone IMAGE:1012892 5' similar to contains Alu repetitive element;, mRNA sequence. AI791844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Laboratory of Molecular Genetics
Institute for Molecular and Cellular Regulation, Gunma University
Showa-machi 3-39-15, Maebashi, Gunma, 371-8512, Japan
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Fax: 81-27-220-8889
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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Location/Qualifiers
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/clone_lib="Homo sapiens
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/mol_type="mRNA"
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/clone="hbt10023"
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Query Match
Best Local Similarity
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putative full length read
Futative full length read
The vector to vector length is 671
Insert Length: 741 Std Error: 0.
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Email: Cgapbs remail.nih.gov
Tissue Procurement: L. Jeffrey Medeiros, M.D., Michael
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumor Gene Index
Unpublished (1997)
Other ESTs: nk08a11.s1
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1 (bases 1 to 505)

NCI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy
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DNA Sequencing by: Mashington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.B. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
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/lab host="SOLR (kanamycin resistant)"
/clone_lib="NCI_CGAP_CO2"
/clone_tib="NCI_CGAP_CO2"
/note="forgan: colon; Vector: Bluescript SK-; Site_1:
/note="forgan: colon; Vector: Bluescript SK-; Site_1:
/note="forgan: colon; Vector: Bluescript SK-; Site_2:
/note="forgan: colon; Vector: Bluescript SK-; Site_1:
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Copyright (c) 1993 - 2006 Compugen Ltd.
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US-09-252-991A-11111
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US-09-949-016-88511
US-09-949-016-1248
US-09-902-540-639
US-09-902-540-639
US-09-902-540-6134
US-09-902-540-1134
US-09-130-114-2
US-09-130-114-2
US-09-902-540-4193
US-09-902-540-4193
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US-08-232-463-14
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a 1255, Ap

a 1350, Ap

a 1350, Appl

a 11029, A

a 11029, A

a 11226, A

a 11926, A

a 1956, A

a 1956, A

a 1956, A

a 1956, A
             1134, Ap
4, Appli
2, Appli
2, Appli
4193, Ap
1209, Ap
1707, Ap
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53, Appl
14, Appl
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ALIGNMENTS	5223425-7	US-10-202-676-1	US-10-202-676-3	US-09-821-255-1	US-09-477-962-1	US-09-252-991A-13656	US-09-252-991A-13773	US-09-252-991A-13572	US-09-252-991A-5094	US-09-252-991A-5127	US-09-252-991A-5066	US-09-252-991A-12858	US-09-252-991A-1465	US-09-252-991A-13081	US-09-252-991A-1561	US-09-252-991A-12931	US-09-252-991A-1556	US-09-252-991A-1610	US-09-128-155-16	US-09-949-016-12443	US-09-949-016-16449
	Patent No. 5	-	Sequence 3,	, -	۳,	, д	Sequence 13	Sequence 13					Sequence 1465	Sequence 1308		Sequence 1293	Sequence 1556		Sequence 16,	Sequence 12	Sequence 16
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RESULT 1
US-09-578-063-54
                                                                                                             ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-578-063-54
Query Match
Best Local Similarity
Matches 546; Conserv
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                                                                                                                                                                                                           SOFTWARE: I
SEQ ID NO 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                           APPLICANT: McCarthy, Sean A
APPLICANT: Barnes, Thomas M
APPLICANT: Barnes, Thomas M
APPLICANT: Braser, Christopher C
APPLICANT: Sharp, John D
TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,
TITLE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES
FILE REFERENCE: 210147.0023/601
FILE REFERENCE: 210147.0023/601
CURRENT APPLICATION NUMBER: US/09/578,063
CURRENT FILING DATE: 2000-05-24
PRIOR APPLICATION NUMBER: US/09/333,159
PRIOR FILING DATE: 1999-06-14
                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
                                                                                                                                                                                     LENGTH:
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CCTGGCTGTGAATTTCAGTTCTGAGTGGTCTGTGGGCCAGGTCAGCACCAACACATCATA TGTGGCTGTGCACTTCAGTGCAGAATGGTTCGTGGGTACAGTGAACACCAACACATCCTA **AAAGACGAGGCTGTTCTGGCTTCGGGTGGTGACCAGCTTATTCATCGGGGCTGCAAT**

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260

CAAAGCCTTCAGCGCAGCGCGCGTTACAGCCCCTGTCGGCTCTGCTCGTGGAGGG

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407 CCACTCGCGCTGGTTTTGGTTGGTGAGAGTTCTTCTCAGTCTGTTCATAGGCGCAGAAAT

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347 TATTCTAGTGTTTTTGGCTCTAGCAGCAAGCTTCCTGCTCATCTTGCCGGGGATCCGTGG

21 ATTICCCCTTCTATGCTGGCCCCAAGCCAACCTTCCCGATGGACACCACTTTGGCCAGCAT

287 ACTGCCTTTTTACCCCCAGCCCCGGCATGCCGCAGGCTTCAGCGTTCCACTGCTCATCGT 346

Conservative

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Score 354.8; DB 3; Pred. No. 7.7e-78; 0; Mismatches 297;

Indels Length 1029;

ω •

Gaps

DB 3;

25.0%;

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APPLICANT: Barnes, Thomas M
APPLICANT: Barnes, Thomas M
APPLICANT: Barnes, Thomas M
APPLICANT: Fraser, Christopher C
APPLICANT: Sharp, John D
ITILE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,
ITILE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES
FILE REFERENCE: 210147.0023/601
CURRENT APPLICATION NUMBER: US/09/578,063
CURRENT PRICING DATE: 2000-05-24
PRIOR APPLICATION NUMBER: US/09/333,159
RRIOR FILING DATE: 1999-06-14
NUMBER: OF SEQ ID NOS: 79
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 53
LENGTH: 2133
TYPE: DNA
ORGANISM: Homo sapiens
US-09-578-063-53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-578-063-53
                                                                                                               Query Match 25.0%;
Best Local Similarity 63.8%;
Matches 555; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1004
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                                                 CAGCATGACCCTGTGGAACGGCGTACTGCCTTTTTTACCCCCCAGCCCCGGCATGCCGCAGG 322
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  CAAGATGGCTACTTTGGGACACACATTCCCCTTCTATGCTGGCCCCAAGCCAACCTTCCC 125
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                                                                                                            Score 354.8; DB 3;
Pred. No. 9.3e-78;
0; Mismatches 312;
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                                                                                                                                                                 Length 2133;
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US-08-232-463-14
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                                                                                                                                                                                                                                                                           Sequence 14, Application US/08232463
Patent No. 5670367
GENERAL INFORMATION:
                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 1800 Diagonal Road,
                                                                                                                                                              APPLICANT: DORNER, F.
APPLICANT: SCHEIFLINGER, F.
APPLICANT: FALKNIER, F. G.
TITLE OF INVENTION: RECOMBINANT
                                                                                                                                    NUMBER OF SEQUENCES:
STREET:
CITY: A
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  906
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  Alexandria : VA
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RESULT 4
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                                                                           GENERAL INFORMATION:
                                                                                          Sequence 1304, Application US/09252991A Patent No. 6551795
               APPLICANT: Marc J.
TITLE OF INVENTION:
TITLE OF INVENTION:
FILE REFERENCE: 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                            APPLICANT:
CURRENT APPLICATION
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
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APPLICATION NUMBER: 1
FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,
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nes 7; Conservative 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
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DEDNESS: single
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                                             Rubenfield et al.
NUCLEIC ACID AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
NUMBER: US/09/252,991A
                              AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
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1.9%; Pred. No. 3.5e-05;
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                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-1255
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SEQ ID NO 1255
LENGTH: 1257
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SEQ ID NO 1304
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PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18
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TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1098
TYPE: DNA
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
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Local Similarity 50.6%;
nes 121; Conservative
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1018 GGGTCACGCTGGCAACCGGCGTCCTGTGCCTCTTCCCTCGGAGGGGCCGTGGTGAGTCTC
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NVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCTCGGCCGGCTGTTCGCCGAAGCCCCTGGAGAACACCCCGGCGCAGCCCGGCGAGGCCT 423
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                                                        TGCTCGGCCGGCTGTTCGCCGAAGCCCCTGGAGAACACCCCGGCGCAGCCCGAGGCCT
                                                                                       cgererecegerecegeragecrecegegereaceaeragracesegegegecerrer 1017
                                                                                                                                  TGGCGGCCGGGCTCGGGCCGAACGCCGGGACCCTTCGCCCTGGCGCTGCACACCGGCGGCG 452
                                                                                                                                                        TGACCACCGGAGCCTTCGGCGCTCTTCGGCGTTCGCCTTGGCCTCCATCTCTAGCGTGC 957
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Pred. No. 0.01;
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RESULT 6
US-09-252-991A-1163
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Matches
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SEQ ID NO 1163
LENGTH: 1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 6551795
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1350, Application US/09252991A Patent No. 6551795
                                                                                                                                                                                                                  SEQ ID NO 1350
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
PRIOR FILING DATE: 1998-07-27
                                            Matches 107; Conservative
                                                                                    Query Match
                                                                                                                                                                                                                                   PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
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                                                                                                                                                     TYPE: DNA
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                         LENGTH: 396
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  838 GGCTCCTCTCCAACGTGCTGCTCTCCACGCCGGCCCCGCTCTACGGAGGCCTGGCACTGC 897
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                                                                3.4%;
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                                          Score 48.2; DB 3; Length 396; Pred. No. 0.024; 0; Mismatches 98; Indels
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TITLE OF INVENTION: Plant Metabolism Genes
FILE REFERENCE: BB1378 US NA
CURRENT APPLICATION NUMBER: US/09/614,912
CURRENT FILING DATE: 2000-07-12
PRIOR APPLICATION NUMBER: 60/143,401
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/143,412
PRIOR FILING DATE: 1999-07-12
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/146,650
PRIOR APPLICATION NUMBER: 60/146,650
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US-09-614-912-35
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SOFTWARE: Microsoft (
SEQ ID NO 35
LENGTH: 1436
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                                                                                                                                                                                                                                                                                                                                      Matches 187;
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                                                                                                                                                                                                                                                                                                                                                                         Query Match
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APPLICANT:
APPLICANT:
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PRIOR APPLICATION NUMBER: 60/170,906
PRIOR FILING DATE: 1999-12-15
PRIOR APPLICATION NUMBER: 60/172,959
PRIOR FILING DATE: 1999-12-21
PRIOR FILING DATE: 1999-12-21
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
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                                                                                                                                                            103 TTCGACGCTGCCCCTGAGCGGCCTCTCCGACATCCCGCAGCAGTTCATCTGGCCGGCG
                                                                                                                                                                                                  609 ACCCCAGTGCATCAGCTGAACGAGACCATTGACTACAACGAGCAGTTCACCTGGCGTCTG 668
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5. 6677502
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Weng, Zude
Caimi, Perry G
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        CTCTACCTGGCGGAGAAGTTCACACCG---AGTAGCCCTTGCGGCCTGTACCACCAGTAC 785
                                                                       GACGAGAGCCCCACCCCGGACTCCGCCGAGGAGCTGGCCGTGCCGGCTCATCGACCTCTCC
                                                                                                                                                                                                                                               GCTTCCTCCTCCTCACCATGGTGCTGGCTGCGCACGATCCCCCTCCCCTTGTG 102
                                                                                                               Orozco, Buddy
Miao, Gou-Hau
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Rafalski, Antoni
Orozco, Buddy
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                                                                                                                                                                                                                                                                                                                                 3.4%; Score 48; DB 3; Length 1436;
46.8%; Pred. No. 0.038;
ative 0; Mismatches 210; Indels
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RESULT 9
US-09-252-991A-11029/c
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US-09-252-991A-11226
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PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 11029
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Patent No. 6551795
GENERAL INFORMATION:
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Best Local Similarity
Matches 134; Conserv
                                                                                                                 Patent No. 6551795
GENERAL INFORMATION:
                                                                                                                                             Sequence 11226, Ap
Patent No. 6551795
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
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NUMBER OF SEQ ID NOS: 33142
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
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RESULT 13
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US-09-252-991A-10956/c
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APPLICANT: MATC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                               GENERAL INFORMATION: APPLICANT: Allen,
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                                                                                                        APPLICANT:
APPLICANT:
                                                    APPLICANT:
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ORGANISM: Pseudomonas aeruginosa
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 INVENTION: Plant
                                                                                   Rafalski, Antoni
Orozco, Buddy
Miao, Gou-Hau
Famodu, Omolayo O.
Lee, Jian Ming
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                               Sakai, Hajime
Weng, Zude
Caimi, Perry G
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RESULT 14 US-09-949-016-88511

Sequence 88511, Application Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig

Craig et al

US/09949016

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SEQ ID NO 49
LENGTH: 1431
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CURRENT APPLICATION NUMBER: US/09/614,912
CURRENT FILING DATE: 2000-07-12
PRIOR APPLICATION NUMBER: 60/143,401
PRIOR FILING DATE: 1999-07-12
PRIOR PPLICATION NUMBER: 60/143,412
PRIOR FILING DATE: 1999-07-12
PRIOR PRIOR DATE: 1999-07-12
PRIOR PPLICATION NUMBER: 60/146,650
PRIOR PPLICATION NUMBER: 60/170,906
PRIOR APPLICATION NUMBER: 60/170,906
PRIOR FILING DATE: 1999-12-15
PRIOR FILING DATE: 1999-12-15
PRIOR APPLICATION NUMBER: 60/172,959
PRIOR PRICING DATE: 1999-12-15
PRIOR APPLICATION NUMBER: 60/172,946
PRIOR APPLICATION NUMBER: 60/172,946
PRIOR APPLICATION NUMBER: 60/172,946
PRIOR APPLICATION NUMBER: 60/172,946
PRIOR PRICING DATE: 1999-12-11
PRIOR APPLICATION NUMBER: 60/172,946
PRIOR FILING DATE: 1999-12-21
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Best Local Similarity 46.5
Matches 186; Conservative
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(1402)
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CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FRASESEQ for Windows Version 4.0
SEQ ID NO 88511
ENGTH: 601
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US-09-949-016-14248/c
; Sequence 14248, Application US/09949016
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US-09-949-016-14248
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US-09-949-016-88511
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CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                               SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14248
LENGTH: 8991
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APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
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Best Local Similarity 57.7%;
Matches 82; Conservative
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Best Local Similarity 57.7%;
Matches 82; Conservative
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3472 AGGGTCCTCACCCTGTGGGCCCAATGTGATAAGCACTGGAGGCCGGAGATAAGGGGCTTT 3413

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OY 1155 CCTCTTATCCTCGGCGACCCAC 1176
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Search completed: January 22, 2006, 02:40:03 Job time : 288 secs

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Result
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1: /cgn2 6/ptodata/1/pubpna/USO? PUBCOMB.seq:*
2: /cgn2 6/ptodata/1/pubpna/USO8 PUBCOMB.seq:*
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US-10-187-657-4
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US-10-187-657-5
US-10-187-657-5
US-10-187-657-5
US-10-187-657-7
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Sequence 1, Appl	Sequence 5889,	Sequence 2740,	Sequence 46357	Sequence 15938	Sequence 40658	Sequence 35623	Sequence 93461	Sequence 140838,	Sequence 10408	Sequence 13710, A	Sequence 340, App	Sequence 3277, Ap	Sequence 8903, Ap	Sequence 29060, A	Sequence 3511, Ap	Sequence 8, Appl	Sequence 100166,	Sequence 9492,	Sequence 91970, A	Sequence 91970,	Sequence 145294
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RESULT 1 US-10-187-657-2 US-10-187-657-2 ; Sequence 2, Application US/10187657 ; Publication No. US20030068311A1 ; GENERAL INFORMATION:

ALIGNMENTS

APPLICANT: Lasek, Amy K.W.
APPLICANT: Baughn, Mariah R.
APPLICANT: Baughn, Mariah R.
APPLICANT: Azimzai, Yalda
ITILE OF INVENTION: TRANSMEMBRANE PROTEIN DIFFERENTIALLY EXPRESSED IN CANCER
FILE REFERENCE: PV-0009 CIP
CURRENT FILING DATE: 2002-07-01
PRIOR APPLICATION NUMBER: US/10/187,657
CURRENT FILING DATE: 2002-07-01
PRIOR PILING DATE: 2000-03-22
PRIOR PILING DATE: 2000-03-25
PRIOR FILING DATE: 1999-06-16
NUMBER OF SEQ ID NOMBER: 60/139,565
PRIOR PILING DATE: 1999-06-16
NUMBER OF SEQ ID NOS: 9
SOFTWARE: PERL PROGRAM
SEQ ID NO 2
LENGTH: 1421
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID NO. US20030068311A1 4901066CB1
US-10-187-657-2

US-10-187-657-2

Query Match
Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1421; Conservative 0; Mismatches 0; Indels 0; C

S 밁 8 밁 8 밁 S 181 181 121 121 61 61 CTCTGTCGGTACCAACCCCAGAGCGTTGAGAGCAGCCCACCTCCACGCTTCCTTAACGGA 120 GAGGTGCAGGACTCAGACTTCACCAGCCCACTCGGTCCCAGCCTTGTACGCAAAGAGACG 180 TITITITI TO THE TOTAL CONTROL OF THE TOTAL CONTROL CCAAGGACGCGCTCTCCCGCGTCCAGGCAGCCCCAGCTTGCTGGCCTGCCCTGCCCGCCTG 240 GAGGTGCAGGACTCAGACTTCACCAGCCCACTCGGTCCCAGCCTTGTACGCAAAGAGACG 180 <u>.</u> Mismatches <u>.</u> Indels 0; Gaps 60

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                   TGGGACATCGCAGGCCGGGAAGCAGTGCCCGCCAGGCCTGGGCCAGGAGAGCTCCAGGAA
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TGGGACATCGCAGGCCGGGAAGCAGTGCCCGCCAGGCCTGGGCCAGGAGAGCTCCAGGAA
                                                                         ACTIANAATGTATCACCACTAACCTGTGAGGGGGACCCAATCTGGACTCCTTCCCCGCCT
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APPLICANT. INFORMATION COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND TITLE OF INVENTION: TREATMENT OF TUMOR
FILE REFERENCE: P5026R1-US
CURRENT APPLICATION NUMBER: US/10/643,795A
CURRENT PILING DATE: 2002-08-19
PRIOR APPLICATION NUMBER: US 60/404,809
PRIOR APPLICATION NUMBER: US 60/405,645
PRIOR FILING DATE: 2002-08-19
PRIOR FILING DATE: 2002-08-19
PRIOR FILING DATE: 2002-09-23
PRIOR APPLICATION NUMBER: US 60/413,192
PRIOR APPLICATION NUMBER: US 60/413,192
PRIOR APPLICATION NUMBER: US 60/419,008
PRIOR FILING DATE: 2002-09-23
PRIOR APPLICATION NUMBER: US 60/419,008
PRIOR FILING DATE: 2002-10-15
PRIOR APPLICATION NUMBER: US 60/426,847
PRIOR FILING DATE: 2002-11-15
PRIOR APPLICATION NUMBER: US 60/426,847
PRIOR FILING DATE: 2002-11-15
PRIOR APPLICATION NUMBER: US 60/426,847
PRIOR FILING DATE: 2002-01-15
PRIOR FILING DATE: 2002-07-02
NUMBER OF SEQ ID NOS: 158
SEQ ID NO 5
LENGTH: 1450
TYPE: DNA
ORGANISM: Homo sapien
FEATURE:
NAME/KEY: Unsure
LOCATION: Unsure
LOCATION
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APPLICANT: KENNETH J. HILLAN
APPLICANT: PAUL POLAKIS
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VICTORIA SMITH
SUSAN D. SPENCER
THOMAS D. WU
ZEMIN ZHANG
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CURRENT FILING DATE: 2004-09-22
PRIOR APPLICATION NUMBER: US/10/643,795
PRIOR PILING DATE: 2003-08-19
PRIOR APPLICATION NUMBER: US 60/404,809
PRIOR PILING DATE: 2002-08-19
PRIOR PILING DATE: 2002-08-21
PRIOR PILING DATE: 2002-08-21
PRIOR FILING DATE: 2002-08-21
PRIOR FILING DATE: 2002-09-23
PRIOR APPLICATION NUMBER: US 60/419,008
PRIOR APPLICATION NUMBER: US 60/426,847
PRIOR PILING DATE: 2002-10-15
PRIOR PILING DATE: 2002-11-15
PRIOR APPLICATION NUMBER: US 60/426,847
PRIOR APPLICATION NUMBER: US 60/484,959
PRIOR FILING DATE: 2003-07-02
NUMBER OF SEQ ID NOS: 158
SEQ ID NO 5
LENGTH: 1450
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Publication No. US2005064492A1
GENERAL INFORMATION:
APPLICANT: FREDERIC J. DESAUVAGE
APPLICANT: GRETCHEN FRANTZ
APPLICANT: GRETCHEN FRANTZ
APPLICANT: FAUL POLAKIS
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US-10-948-518-5
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; LOCATION: 2
; OTHER INFORMATION: Unknown base
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APPLICANT:
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APPLICANT: SUSAN D. SPENCER
APPLICANT: THOMAS D. W
APPLICANT: ZEMIN ZHANG
TITLE OF INVENTION: TREATMENT OF TUMOR
FILE REFERENCE: P5026R1-US
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CURRENT APPLICATION NUMBER: US/10/264,237
CURRENT FILING DATE: 2002-10-04
PRIOR APPLICATION NUMBER: PCT/US01/16450
PRIOR FILING DATE: 2001-05-18
PRIOR APPLICATION NUMBER: US 60/205,515
PRIOR TILING DATE: 2000-05-19
NUMBER OF SEQ ID NOS: 2876
SOFTWARE: PATCHINI Ver. 3.1
SEQ ID NO 1097
LENGTH: 1474
TYPE: DNA
ORGANISM: Homo sapiens
US-10-264-237-1097
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Publication No. US20040009491A1
GENERAL INFORMATION:
APPLICANT: Birse et al.
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PA131P1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 99.8%;
Best Local Similarity 99.8%;
Matches 1418; Conservative
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RESULT 5
US-10-187-657-4
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Publication No. US20030068311A1
GENERAL INFORMATION:
APPLICANT: Lasek, Amy K.W.
APPLICANT: Baughn, Mariah R.
APPLICANT: Baughn, Mariah R.
APPLICANT: Azimzai, Yalda
APPLICANT: Azimzai, Yalda
TITLE OF INVENTION: TRANSMEMBRANE PROTEIN DIFFERENTIALLY EXPRESSED IN CANCER
FILE REFERENCE: PV-0009 CIP
CURRENT APPLICATION NUMBER: US/10/187,657
CURRENT FILING DATE: 2002-07-01
PRIOR APPLICATION NUMBER: PCT/US00/07817
PRIOR FILING DATE: 2000-03-22
PRIOR FILING DATE: 2000-03-25
PRIOR FILING DATE: 1999-06-16
NUMBER OF SEQ ID NOS: 9
SOFTWARE: PERL Program
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RESULT 6
US-10-773-236-187
; Sequence 187, Applical
; Publication No. US200
; Publication No. US200
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/773,236
CURRENT FILING DATE: 2004-02-09
PRIOR APPLICATION NUMBER: 60/311,085
PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: 60/325,209
PRIOR FILING DATE: 2001-09-28
PRIOR APPLICATION NUMBER: PCT/US02/25107
PRIOR APPLICATION NUMBER: 907/330,629
PRIOR FILING DATE: 2001-10-26
PRIOR APPLICATION NUMBER: 607/330,629
PRIOR PILING DATE: 2001-10-26
PRIOR APPLICATION NUMBER: PCT/US02/33985
PRIOR APPLICATION NUMBER: PCT/US02/33985
               Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 396
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 187
LENGTH: 1491
                                                                                                  PRIOR
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TITLE OF INVENTION: 89 Human Secreted Proteins
FILE REFERENCE: PS751P1
                                                                                             OR APPLICATION NUMBER: PCT/USO2/35606
OR FILING DATE: 2002-11-06
OR APPLICATION NUMBER: 60/358,554
OR FILING DATE: 2002-02-22
OR APPLICATION NUMBER: PCT/USO3/04819
OR FILING DATE: 2003-02-20
OR APPLICATION NUMBER: 60/358,714
OR APPLICATION NUMBER: 60/358,714
OR FILING DATE: 2002-02-25
                                                                                                                                                                                                                               FILING DATE: 2002-10-24
APPLICATION NUMBER: 60/331,046
FILING DATE: 2001-11-07
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GENERAL INFORMATION:

APPLICANT: Lasek, Amy K.W.

APPLICANT: Baughn, Mariah R.

APPLICANT: AZIMZAI, Yalda

ITITLE OF INVENTION: TRANSMEMBRANE PROTEIN DIFFERENTIALLY EXPRESSED IN C
FILE REFERENCE: PV-0009 CIP

CURRENT APPLICATION NUMBER: US/10/187,657

CURRENT FILING DATE: 2002-07-01

PRIOR APPLICATION NUMBER: PCT/US00/07817

PRIOR APPLICATION NUMBER: PCT/US00/07817

PRIOR APPLICATION NUMBER: 60/139,565

PRIOR FILING DATE: 1999-06-16

NUMBER OF ESG ID NOS: 9

SOFTWARE: PERL PROGram

SEQ ID NO 5

LENGTH; 522

TYPE: DNA

ORGANISM: Homo sapiens
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Publication No. US20030068311A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE: UNBURE
LOCATION: 455, 480, 483
OTHER INFORMATION: a, t, c, g, or other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. US20030068311A1 3221661R6
 478
                              481
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                                                                                                TTTGGTTGGTGAGAGTTCTTCTCAGTCTGTTCATAGGCGCAGAAATTGTGGCTGTGCACT
                                                                                                                                TGG-TCTAGCAGCAAG--TTCCTGTCATCTTGCCGGGGGATCCGTGGCCACTCGCGCTGGT
                                                                                                                                                               TGGCTCTAGCAGCAAGCTTCCTGCTCATCTTGCCGGGGATCCGTGGCCACTCGCGCTGGT
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APPLICATION NUMBER: 60/331,046
PRIOR APPLICATION NUMBER: 60/31,046
PRIOR APPLICATION NUMBER: 60/31,085
PRIOR FILING DATE: 2001-09-10
PRIOR APPLICATION NUMBER: 60/325,209
PRIOR PRILING DATE: 2001-09-28
PRIOR PILING DATE: 2001-09-28
PRIOR PILING DATE: 2001-09-38
PRIOR PILING DATE: 2001-10-26
PRIOR PILING DATE: 2001-10-26
PRIOR APPLICATION NUMBER: PCT/US02/33985
PRIOR APPLICATION NUMBER: PCT/US02/33985
PRIOR APPLICATION NUMBER: 60/331,046
PRIOR PILING DATE: 2001-11-07
PRIOR APPLICATION NUMBER: 60/331,046
PRIOR PILING DATE: 2002-10-24
PRIOR APPLICATION NUMBER: 60/331,046
PRIOR PILING DATE: 2002-11-06
PRIOR PILING DATE: 2002-02-25
PRIOR APPLICATION NUMBER: 60/358,554
PRIOR APPLICATION NUMBER: 60/358,544
PRIOR APPLICATION NUMBER: 60/358,714
PRIOR APPLICATION NUMBER: 60/358,714
PRIOR APPLICATION NUMBER: 60/358,714
PRIOR APPLICATION NUMBER: 60/358,714
PRIOR PILING DATE: 2002-02-25
PRIOR PILING DATE: 2002-02-25
PRIOR PILING DATE: 2002-02-25
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; ORGANISM: Homo sapiens
US-10-773-236-69
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; Publication No. US20
; GENERAL INFORMATION:
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SEQ ID NO 69
LENGTH: 580
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Best Local Similarity 100.0%; Pred. No. 2.5e-117;
Matches 413; Conservative 0; Mismatches 0; Indels
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365
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APPLICANT: Hyseq, Inc
APPLICANT: Hyseq, Inc
ITILE OF INVENTION: NOWEL NUCLEIC ACIDS AND POLYPEPTIDES
FILE REFERENCE: 790CIP3/US
CURRENT APPLICATION NUMBER: US/10/450,763
CURRENT FILING DATE: 2003-06-11
PRIOR APPLICATION NUMBER: PCT/US01/08631
PRIOR APPLICATION NUMBER: DCT/US01/08631
PRIOR FILING DATE: 2001-03-30
PRIOR APPLICATION NUMBER: 09/540,217
PRIOR FILING DATE: 2000-03-31
PRIOR APPLICATION NUMBER: 09/649,167
PRIOR FILING DATE: 2000-08-23
NUMBER OF SEQ ID NOS: 60736
SOPTWARE: CLUSTOM
SEQ ID NO 2367
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US-09-925-065A-72673/c
                                                Sequence 72673, Application US/09925065A
Publication No. US20050228172A9
GENERAL INFORMATION:
APPLICANT: Wang, David G.
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135
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                   CURRENT APPLICATION NUMBER: US/09/925,065A CURRENT FILING DATE: 2001-08-08
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LOCATION: (229)..(92)
OTHER INFORMATION: 41% homologous to Homo sapiens Human secreted protein, SEQ
OTHER INFORMATION: NO: 7589, accession number G03508, Smith-Waterman Score=71.
PRIOR APPLICATION NUMBER: US 60/243,096
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TYPE: DNA
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Local Similarity 99.5%;
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Pred. No. 3.4e-114;
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PRIOR FILING DATE: 2000-11-20
PRIOR PELICATION NUMBER: US 60/250,092
PRIOR FILING DATE: 2000-11-30
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR FILING DATE: 2001-01-16
PRIOR APPLICATION NUMBER: US 60/289,846
PRIOR FILING DATE: 2001-05-09
PRIOR FILING DATE: 2001-05-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 957086
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 72673
                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 1376
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                                                                                       CCCAGCCCCGGCATGCCGCAGGCTTCAGCGTTCCACTGCTCATCGTTATTCTAGTGTTTT
                                                                                                                   CGTGCAGCACTCGGCCGGCGTGCAGCATGACCCTGTGGAACGGCGTACTGCCTTTTTACC
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99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                               1; Mismatches
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Pred. No. 3.9e-112;
1: Mismatches 0;
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RESULT 12 US-10-094-749-1195/c Sequence 1195, Application US/10094749
Publication No. US20030219741A1
GENERAL INFORMATION:
APPLICANT: ISOGAI, TAKAO APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: ISOGAI, TAKAO SUGIYAMA, TOMOYASU OTSUKI, TETSUJI WAKAMATSU, AI SATO, HIROYUKI NAGAHARI, KENUL NAGAHARI, KENUL NASUHIKO OTSUKA, KAORU NAGAI, KEIICHI IRIE, RYOTARO TAMECHIKA, ICHIRO SEKI, NAOHIKO YOSHIKAWA, TSUTOMU YAMAMOTO, ISONO, YURI SHIZUKO TO, JUN-ICHI YUUKO

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GENERAL INFORMATION.

APPLICANT: LABEK, AMY K.W.

APPLICANT: BAUGhn, Mariah R.

APPLICANT: BAUGhn, Mariah R.

APPLICANT: BAUGhn, Yalda

TITLE OF INVENTION: TRANSMEMBRANE PROTEIN DIF

FILE REFERENCE: PV-0009 CIP

CURRENT APPLICATION NUMBER: US/10/187,657

CURRENT FILING DATE: 2002-07-01

PRIOR APPLICATION NUMBER: PCT/US00/07817

PRIOR APPLICATION NUMBER: 60/139,565

PRIOR APPLICATION NUMBER: 60/139,565

PRIOR APPLICATION DATE: 1999-06-16

NUMBER OF SEQ ID NOS: 9

SOFTWARE: PERL PROGRAM

SEQ ID NO 7

TENGTUL AEO

TENGTUL AEO
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US-10-187-657-7
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NUMBER OF SEQ ID NOS: 3381
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1195
LENGTH: 2684
TYPE: DNA
ORGANISM: Homo sapiens
US-10-094-749-1195
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Matches
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Publication No. US20030068311A1
LENGTH: 450
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
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CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
PRIOR APPLICATION NUMBER: 60/350,435
PRIOR FILING DATE: 2002-01-24
PRIOR APPLICATION NUMBER: JP 2001-328381
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les 397; Conserv
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ilarity 97.5%;
Conservative
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; FEATURE:
; NAME/KEY: unsure
; LOCATION: 140, 165, 2
; CTHER INFORMATION: a,
US-10-187-657-7
APPLICANT: MACKAY, Charles R
APPLICANT: Myers, Paul S
APPLICANT: Leiby, Kevin R
APPLICANT: Leiby, Kevin R
APPLICANT: Wighton, Nicolas
APPLICANT: Goodearl, Andrew
APPLICANT: Holtzman, Douglas A
TITLE OF INVENTION: MOVEL GENES ENCODING PROTEINS HAVING
TITLE OF INVENTION: PROGNOSTIC, DIAGNOSTIC, PREVENTIVE, THE
TITLE OF INVENTION: USES.
FILE REFERENCES: MPION-5350MNIM
CURRENT APPLICATION NUMBER: US/09/759,130B
CURRENT APPLICATION NUMBER: US 09/479,249
PRIOR APPLICATION NUMBER: US 09/479,249
PRIOR APPLICATION NUMBER: US 09/559,497
PRIOR APPLICATION NUMBER: US 09/559,497
PRIOR APPLICATION NUMBER: US 09/578,063
PRIOR FILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: US 09/578,063
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Publication No. US20030022279A1
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals
APPLICANT: MCCarthy, Sean A
APPLICANT: Fraser, Christopher C
APPLICANT: Sharp, John D
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Best Local Similarity 93.7
Matches 404; Conservative
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Kirst, Susan J
Mackay, Charles R
Myers, Paul S
Leiby, Kevin R
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Sharp, John D
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Pred. No. 6.6e-:
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; ORGANISM: Homo sapiens
US-09-759-130B-424
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NUMBER OF SEQ ID NOS: 460
SOFTWARE: FastSEQ for Windows
SEQ ID NO 424
LENGTH: 1029
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Best Local Similarity 64.5%;
Matches 546; Conservative
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APPLICATION NUMBER: US 09/393,996
FILING DATE: 1999-09-10
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Publication No. US20020182675A1

Publication No. US20020182675A1

Publication No. US20020182675A1

Publication No. US20020182675A1

APPLICANT: MCCARTHY, Sean A

APPLICANT: MARNES, Thomas M

APPLICANT: FRASER, Christopher C

APPLICANT: SHARP, John D

TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,

TITLE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES

FILE REFERENCE: 10147-6U2

CURRENT APPLICATION NUMBER: US/10/042,431

CURRENT APPLICATION NUMBER: US/10/042,431

PRIOR APPLICATION NUMBER: US 09/333,159

PRIOR APPLICATION NUMBER: US 09/333,159

PRIOR APPLICATION NUMBER: US 09/578,063

PRIOR APPLICATION NUMBER: US 09/578,063

PRIOR FILING DATE: 2000-05-24

NUMBER OF SEQ ID NOS: 79

**COPURATE: DATE: 1999-06-14

**COPURATE: DATE: 2000-05-24
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TYPE: DNA
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1: /cgn2_6/ptodata/1/pubpna/US08 NEW_PUB.seq:*

2: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*

3: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*

4: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*

5: /cgn2_6/ptodata/1/pubpna/US0_NEW_PUB.seq:*

6: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*

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8: /cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq:*

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13273, A
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RESULT 1 US-11-136- ; Sequence ; Publicat ; GENERAL ; APPLICA ; APPLICA ; APPLICA ; TITLE 0 ; FILE RE		C 45	44	43	4.2	41	40	ω S	38	37	36	35	ω 4	ω	32	31	w	c 29	28	c 27	N	N	24	23	
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pplication US/111: US20050287570A1 TON: h hnts, William M TON: Probe Arrays		1527	1883	1725	963	8651	1897	1110	3200	850	170189	161726	161726	t n	1494	10809	10800	116856	2133	172543	164810	34875	955	895	
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US/11136527 570A1 am M Arrays For Expression Profiling	ALIGNMENTS	- 1	US-11-012-668-9	US-10-821-234-772	US-10-858-730-182	US-10-432-483-48	US-10-775-169-236	US-10-432-483-14	US-10-645-441-13	US-10-883-512-114	US-11-112-908-50	US-11-112-908-52	US-11-112-908-48	US-11-112-908-51	US-11-143-980-26	US-11-019-711-1	US-11-019-711-5	US-11-143-980-1	US-11-143-980-13	US-11-121-086-6	US-11-121-086-4	US-10-775-169-316	US-10-883-512-110	US-10-883-512-112	
Profiling of Rat Genes		56		772	182,	Sequence 48, Appl	236,	14,	13,	114,	50,	52,	48,	51,	26	۳,	'n	,-	13	6	4	316			

RESULT 2 US-10-821-234-422 ; Sequence 422, Application US/10821234	Qy 1037 CGTCCTGTGCCTCTTCCTCG 1056	Qy 977 AGGCTCCTCGCGCTCACCACTCAGTACGGCGCCCTTCTGGGTCACGCTGGCAACCGG	Qy 917 GCTCTTCGGGGTCTTCGCCTTCGCCTCCATCTCTAGCGTGCCGCTCTGCCCGCTCCGCCCTCGCCCTCGCCCTCGCGCCTCGCGCCTCGCGCCCAAGCTCATCCGCTCAGCCCAAGCTCATCCGCTCGCGCCCAAGAC	Qy 857 GCTCTCCACGCCGGGCCCCGCTCTACGGAGGCTGGCACTGCTGACCACCGGAGCCTTCGC	Query Match 3.2%; Score 44.8; DB 8; Length 2319; Best Local Similarity 51.5%; Pred. No. 0.085; Matches 103; Conservative 0; Mismatches 97; Indels 0; (US-11-136-527-1934 ; Sequence 1934, Application US/11136527 ; Publication No. US20050287570A1 ; Publication No. US20050287570A1 ; GENERAL INFORMATION: APPLICANT: Myeth ; APPLICANT: Mounts, William M ; TITLE OF INVENTION: Probe Arrays For Expression Profiling of Rat Genes ; FILE REFERENCE: 031896-041000 (AM101086) ; CURRENT APPLICATION NUMBER: US/11/136,527 ; CURRENT FILING DATE: 2005-05-25 ; PRIOR APPLICATION NUMBER: US 60/574,294 ; PRIOR APPLICATION NUMBER: US 60/574,294 ; PRIOR APPLICATION NUMBER: US 60/574,294 ; PRIOR FILING DATE: 2005-05-26 ; NUMBER OF SEQ ID NOS: 362830 ; SOFTWARE: PatentIn version 3.2 ; SEQ ID NO 1934 ; LENGTH: 2319 ; TYPE: DNA ; ORGANISM: Rattus norvegicus US-11-136-527-1934
		GG 1036	AC 895	CT 835	Gaps 0;	to

Publication No. US20050255114A1

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Best Local Similarity 48.9%;
Matches 115; Conservative
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SEQ ID NO 422
LENGTH: 1006
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APPLICANT: Labat, I
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    Matches 115;
                    Query Match
Best Local Similarity
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CURRENT APPLICATION NUMBER: US/10/821,234
CURRENT FILLING DATE: 2004-04-07
PRIOR APPLICATION NUMBER: US 60/462,047
PRIOR FILING DATE: 2003-04-07
NUMBER OF SEQ ID NOS: 1704
                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/11/000,688
CURRENT FILING DATE: 2004-12-01
PRIOR APPLICATION NUMBER: US 60/525,987
PRIOR FILING DATE: 2003-12-01
NUMBER OF SEQ ID NOS: 1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: HOULGATTB, Remi
APPLICANT: BIRNBAUM, Daniel
TITLE OF INVENTION; GENE EXPRESSION PROFILING OF COLON CANCER WITH DNA ARRAYS
FILE REFERENCE: 1423-R-03
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TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
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                                                                                                      FEATURE:

NAME/KEY: misc_feature

LOCATION: (1)...(1071)

OTHER INFORMATION: d component of

OTHER INFORMATION: gene.
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  3.0%;
ilarity 48.9%;
Conservative
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Score 43; DB 8; Length 1071; Pred. No. 0.18; 0; Mismatches 120; Indels
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Pred. No. 0.18;
0; Mismatches
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Publication No. US20050287641A1
GENERAL INFORMATION:
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SEQ ID NO 1
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NUMBER OF SEQ ID NOS: 46
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PRIOR APPLICATION NUMBER: US 60/239,924
PRIOR FILING DATE: 2000-10-13
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CURRENT FILING DATE: 2005-08-17
PRIOR APPLICATION NUMBER: US/09/976,059
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APPLICANT: Staffa, Alfredo
TITLE OF INVENTION: GENE CLUSTER FOR RAMOPLANIN BIOSYNTHESIS
FILE REFERENCE: 3002-2US
                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE: FEATURE: NAME/KEY: misc feature (4038)..(504
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LOCATION: (2077)..(3078)
OTHER INFORMATION: ORF 1;
NAME/KEY: misc_feature
LOCATION: (12751)..(10829)
OTHER INFORMATION: ORF 8; negative strandedness
FEATURE:
                                                                                             NAME/KEY: misc feature
LOCATION: (9691)..(10761)
OTHER INFORMATION: ORF 7;
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LOCATION: (9464)..(8130)
OTHER INFORMATION: ORF 6
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LOCATION: (7703)..(6693)
OTHER INFORMATION: ORF 5
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NAME/KEY: misc_feature
LOCATION: (6665)..(5814)
OTHER INFORMATION: ORF 4
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NAME/KEY: misc feature
LOCATION: (3118)...(4032)
OTHER INFORMATION: ORF 2;
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OTHER INFORMATION: ORF 3
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APPLICANT: Zazopoulos, Emmanuel
APPLICANT: Staffa, Alfredo
TITLE OF INVENTION: GENE CLUSTER FOR RAMOPLANIN BIOSYNTHESIS
FILE REFERENCE: 3002-2US
CURRENT APPLICATION NUMBER: US/11/205,109
CURRENT FILING DATE: 2005-08-17
PRIOR APPLICATION NUMBER: US/9/976,059
PRIOR FILING DATE: 2001-0-15
PRIOR FILING DATE: 2001-10-15
PRIOR FILING DATE: 2001-10-13
NUMBER OF SEQ ID NOS: 46
SOFTWARE: Patentin version 3.0
SEQ ID NO 1
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Publication No. US20050287641A1
GENERAL INFORMATION:
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Best Local Similarity
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LOCATION: (84481)..(85548)
OTHER INFORMATION: ORF 30;
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LOCATION: (82587)..(84446)
OTHER INFORMATION: ORF 29;
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LOCATION: (82346)..(82062)
OTHER INFORMATION: ORF 28;
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LOCATION: (85556)..(86845)
OTHER INFORMATION: ORF 31; positive
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OTHER INFORMATION: ORF 27;
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OTHER INFORMATION:
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LOCATION: (87372)..(86
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ORF 32; negative
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ORGANISM: ACTINOPALISM: FEATURE:
NAME/KEY: misc feature
NAME/KEY: mi
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          NAME/KEY:
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NAME/KEY: misc_feature
LOCATION: (66546)...(67370)
OTHER_INFORMATION: ORF 16;
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NAME/KEY: misc_feature
LOCATION: (65826)..(669
OTHER_INFORMATION: ORF
                                                                                                         OTHER INFORMATION: ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: ORF 14;
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LOCATION: (19032)..(39713)
OTHER INFORMATION: ORF 13;
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LOCATION: (15880)..(19035)
OTHER INFORMATION: ORF 12;
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LOCATION: (13617)..(12802)
OTHER INFORMATION: ORF 9;
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LOCATION: (15203)..(13614)
OTHER INFORMATION: ORF 10;
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LOCATION: (15591)..(15863)
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LOCATION: (12751)...(10829)
OTHER INFORMATION: ORF 8;
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LOCATION: (7703)...(6693)
OTHER INFORMATION: ORF 5;
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OTHER INFORMATION: ORF 7;
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LOCATION: (9691)..(107)
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LOCATION: (6665)..(5814)
OTHER INFORMATION: ORF 4;
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LOCATION: (4038)..(5048)
OTHER INFORMATION: ORF 3;
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NAME/KEY: misc feature
LOCATION: (3118)..(4032)
OTHER INFORMATION: ORF 2
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OTHER INFORMATION: ORF 1; positive strandedness
                                                                                           : misc feature

3: (67384)..(70059)
misc_feature
(70099)..(70662)
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ORF 15;
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Matches
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NAME/KEY: misc feature
LOCATION: (81624)..(79861)
OTHER INFORMATION: ORF 26; n
FEATURE:
NAME/KEY: misc feature
LOCATION: (81909)..(81682)
OTHER INFORMATION: ORF 27; n
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LOCATION: (87494)..(88420)
OTHER INFORMATION: ORF 33;
                                                                                                                                                                                                                                            NAME/KEY: misc feature
LOCATION: (87372)..(86803)
OTHER INFORMATION: ORF 32;
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LOCATION: (85556)..(868
OTHER INFORMATION: ORF
FEATURE:
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NAME/KEY: misc feature
LOCATION: (84481)..(85548)
OTHER INFORMATION: ORF 30;
FEATURE:
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NAME/KEY: misc_feature
LOCATION: (82587)..(84446)
OTHER INFORMATION: ORF 29;
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LOCATION: (82346)..(82062)
OTHER_INFORMATION: ORF 28;
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LOCATION: (79864)...(78107)
OTHER INFORMATION: ORF 25;
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LOCATION: (78110)..(76449)
OTHER INFORMATION: ORF 24;
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LOCATION: (75535)..(76464)
OTHER INFORMATION: ORF 23;
FEATURE:
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NAME/KEY: misc feature
NAME/KEY: (75424)..(74213)
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LOCATION: (74216)..(73563)
OTHER INFORMATION: ORF 21;
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NAME/KEY: misc feature
NAME/KEY: (70659)..(71906)
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LOCATION: (73439)..(71964)
OTHER INFORMATION: ORF 20;
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                                                                                                                            Local
                                            73052 CGTCGACGCCCAGCCGGCGCGTTCTCCAGCAGGATCTGGTCGAACCGGCGGCGCTCCA
865 CGCCGGCCCGCTCTACGGAGGCCTGGCACCTGCTGACCACCGGAGCCTTCGGGGCTCTTCG 924
                                                                                                             100;
                                                                                                            Similarity 50.0
)0; Conservative
                                                                         CCTCGGCCACGCTATGGGTGGCGTTCTGCTTCTGGCTCCTCCAACGTGCTGCTCTCCA 864
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Pred. No. 2.2;
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                                                                                                                                   Length 88421;
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US-11-136-527-344/c
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SOFTWARE: PatentIn version 3.2
SEQ ID NO 4440
LENGTH: 1400
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                                                                                                                                                                                                                                                                                                                                          Sequence 344, Application US/11136527 Publication No. US20050287570A1
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                                                              SEQ ID NO 344
LENGTH: 230
                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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APPLICANT: Mounts, William M
APPLICANT: Mounts, William M
TITLS OF INVENTION: Probe Arrays For Expression Profiling of Rat Genes
FILE REFERENCE: 031896-041000 (AM101086)
CURRENT APPLICATION NUMBER: US/11/136,527
CURRENT FILING DATE: 2005-05-05-26
PRIOR APPLICATION NUMBER: US 60/574,294
PRIOR FILING DATE: 2005-05-26
                                                                                                                                                                                           APPLICANT: Wyeth
APPLICANT: Mounts, William M
APPLICANT: Mounts, William M
TITLE OF INVENTION: Probe Arrays For Expression Profiling
FILE REFERENCE: 031896-041000 (AM101086)
CURRENT APPLICATION NUMBER: US/11/136,527
CURRENT FILING DATE: 2005-05-25
TYPE: DNA
ORGANISM: Rattus norvegicus
.11-136-527-344
                                                                                                      PRIOR APPLICATION NUMBER: US 60/574,294
PRIOR FILLING DATE: 2005-05-26
NUMBER OF SEQ ID NOS: 362830
SOFTWARE: PatentIn version 3.2
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APPLICANT: CARGILL, Michele et al.
APPLICANT: CARGILL, Michele et al.
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE,
TITLE OF INVENTION: DETECTION AND USES THEREOF
FILE REFERENCE: CL001559
CURRENT APPLICATION NUMBER: US/10/995,561
CURRENT APPLICATION NUMBER: US/10/995,561
CURRENT FILING DATE: 2004-11-24
NUMBER OF SEQ ID NOS: 85702
SOFTWARE: PASESEQ for Windows Version 4.0
SEQ ID NO 13450
TENEMEN 13250
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Best Local Similarity
Matches 77; Conserv
Sequence 13273, Application US/10995561

Publication No. US20050272054A1

GENERAL INFORMATION:
APPLICANT: CARGILL, Michele et al.
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG
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Publication No. US20050272054A1
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Best Local Similarity
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ORGANISM: Homo sapiens
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Pred. No. 1.1;
1; Mismatches 110;
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US-11-121-086-25/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn version 3.3
SEQ ID NO 25
LENGTH: 173602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 25, Application US/11121086 Publication No. US20050266459A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/995,561
CURRENT FILING DATE: 2004-11-24
NUMBER OF SEQ ID NOS: 85702
SOFTWARE: FREESEQ for Windows Version 4.0
SEQ ID NO 13273
LENGTH: 95832
                                                                                                                                                                                                                                                                                                                                     Query Match 2.9%;
Best Local Similarity 48.9%;
Matches 111; Conservative
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Best Local Similarity 49.1%;
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APPLICANT: NIELSEN, KIRSTEN V.

APPLICANT: NIELSEN, KIRSTEN V.

TITLE OF INVENTION: NUCLEIC ACID PROBES AND NUCLEIC ACID ANALOG PROBES

FILE REFERENCE: 99138.6000-00000

CURRENT APPLICATION NUMBER: US/11/121,086

CURRENT FILING DATE: 2005-05-04

PRIOR APPLICATION NUMBER: 60/567,570

PRIOR FILING DATE: 2004-05-04

NUMBER OF SEQ ID NOS: 107
                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                             829 TCTGCTTCTGGCTCCTCCAACGTGCTGCTCTCCACGCCGGCCCGCTCTACGGAGGCC
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TCCCTTTCCCCTTCTCCTTCTCCTCCTTCTCCTTCTCCTTC 51130
                                         cceccrrcreecicacecracceccrecrereccrerecrecrecre 1055
                                                                                                                          CTAGCGTGCCGCTCTGCCCGCCTAGGCTCCTCCGCGCTCACCACTCAGTACGGCG 1008
                                                                                                                                                                                                                                                      GGCCCAGCGCTCTTCGCACCCTTCTGGACCAAAGCGCC 1124
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1; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                  Score 41.4; DB 8;
Pred. No. 3.7;
0; Mismatches 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 41.6;
Pred. No. 2
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; SEQ ID NO 29908
LENGTH: 2432
TYPE: DNA
ORGANISM: Bovine 19866880919140
US-10-750-185-29908
                                                           APPLICANT: MMI GENOMICS, INC.
APPLICANT: MENSE, Sue K.
APPLICANT: LORINSE, Sue K.
APPLICANT: LORINSE, Sue K.
APPLICANT: ROSENFELD, David
APPLICANT: HOLM, Tom
APPLICANT: HOLM, Tom
APPLICANT: FANTIN, Dennis
TITLE OF INVENTION: METHODS AND SYSTEMS FOR INF
FILE REFERENCE: MMII100-1
FULL REFERENCE: MMII100-1
CURRENT APPLICATION NUMBER: US/10/750,623
CURRENT FALING DATE: 2003-12-31
PRIOR APPLICATION NUMBER: US 60/437,482
PRIOR FILING DATE: 2002-12-31
NUMBER OF SEQ ID NOS: 64922
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US-10-750-185-29908
SOFTWARE: PatentIN version 3.1
SEQ ID NO 29908
LENGTH: 2432
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Publication No. US20050287531A1
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APPLICANT: MMI GENOMICS, INC.
                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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Best Local Similarity 47.2%;
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PRIOR FILING DATE: 2002-12-31
NUMBER OF SEQ ID NOS: 64922
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CURRENT APPLICATION NUMBER: US/10/750,185
CURRENT FILING DATE: 2003-12-31
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TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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KERR, Richard
ROSENFELD, David
HOLM, Tom
BATERY, Stephen
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Pred. No. 0.84;
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US-11-087-100-37/c
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                                                                                                                                 Matches
                                                                                                                                             Query Match 2.9%;
Best Local Similarity 52.0%;
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SEQ ID NO 37
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                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/323,269
PRIOR FILING DATE: 2001-09-18
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APPLICANT: Kuner, Jerry
TITLE OF INVENTION: Nucleic Acid Molecule Encoding
TITLE OF INVENTION: System and Uses Thereof
FILE REFERENCE: 2997-29
                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 09/231,899
                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Schizochytrium
                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                    ENGTH: 3886
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nes 125; Conserv
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APPLICATION NUMBER: 60/284,066
FILING DATE: 2001-04-16
APPLICATION NUMBER: 60/298,796
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762 CCTTGCGGCCTGTACCACCAGTACCACCTGGCGGGACACTACGCCTACGCCTACGCTATGG 821
                                                                                         702 CTGGAGAAGGGGCTGCCGGACCCAGTGCTCTACCTGGCGGAGAAGTTCACACCGAGTAGC 761
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                                                       CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGTGATTCCGCAGCGGT
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ilarity 47.2%;
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Pred. No.
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                                                                                                                                 Mismatches
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Publication No.
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                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                             Sequence 37, Application US/11087085 Publication No. US20050273884A1
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NUMBER OF SEQ ID NOS: 37
SOFTWARE: PatentIn version 3.
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PRIOR FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: 60/298,796
PRIOR FILING DATE: 2001-06-15
PRIOR FILING DATE: 2001-06-15
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APPLICANT: Metz, James
APPLICANT: Barclay, William
APPLICANT: Flatt, James
APPLICANT: Kuner, Jerry
TITLE OF INVENTION: Nucleic Acid Molecule Encoding ORFA of
TITLE OF INVENTION: System and Uses Thereof
FILE REFERENCE: 2997-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/11/087,084
CURRENT FILING DATE: 2005-03-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: 60/323,269
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Schizochytrium sp. FEATURE: FEATURE: NAME/KEY: misc_feature LOCATION: (2115)...(2115)
OTHER INFORMATION: n = a, c,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      822 GIGGCGITCIGGCICCICTCCAACGIGCICTCTCCACGCCGGCCCCGCIC 878
                                                                                                                                                                                                                                                                                                                                                                                                  762 CCTTGCGGCCTGTACCACCAGTACCACCTGGCGGACACTACGCCTCGGCCACGCTATGG 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   702 CTGGAGAAGGGGCTGCCGGACCCAGTGCTCTACCTGGCGGAGAAGTTCACACCGAGTAGC
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                                                                                                                                                                                                                                                                                                                   GTGGCGTTCTGGCTCCTCTCCAACGTGCTGCTCTCCACGCCGGCCCCGCTC 878
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No. US20050273883A1
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Kuner, Jerry
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Pred. No.
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CURRENT APPLICATION NUMBER: US/11/087,085

PUFA Polyketide

Synthase

APPLICATION NUMBER:

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PRIOR FILING DATE: 1999-01-14

PRIOR APPLICATION NUMBER: 60/284,066

PRIOR PRILING DATE: 2001-04-16

PRIOR PILING DATE: 2001-04-16

PRIOR PILING DATE: 2001-04-16

PRIOR PILING DATE: 2001-04-16

PRIOR PILING DATE: 2001-06-15

PRIOR PILING DATE: 2001-06-15

PRIOR PILING DATE: 2001-06-15

PRIOR PILING DATE: 2001-06-15

PRIOR PILING DATE: 2001-09-18

PRIOR PILING DATE: 2001-29-19

PRIOR PILING DATE: 2001-09-18

PRIOR PILING DATE: 2001
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